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THE

HANDBOOK FOR MOTHERS;

A GUIDE IN THE

CARE OF YOUNG CHILDREN.

BY

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PREFACE TO THE SECOND EDITION.

IN presenting this second edition of the Handbook for Mothers, it is proper to say that it is done in accordance with the repeated and urgent requests of friends and strangers, both in and out of the medical profession, and from all parts of the country. The author is deeply sensible of, and grateful for, the uniformly kind reception given to the first edition by his professional brethren, as well as the public generally, and trusts that this will be received with equal favor. But slight alterations have been made in the text, and these are mostly of a verbal character.

POUGHKEEPSIE, N. Y.

PREFACE.

A BOOK which could be placed in the hands of mothers, and be to them a safe and sufficient guide in the management of their children, has often been sought by me. Those which are to be found, seem to me faulty, by including too much on some topics, while on others they are deficient. I doubt the policy of placing full and technical descriptions of all varieties of disease in the hands of mothers. Their anxieties, which are at the best great, are increased by the array of half-understood technicalities. By morbidly dwelling upon symptoms as described in books, each movement of the child becomes a source of alarm. Water on the brain, or other terrible disease, is constantly apprehended, and the mother not only suffers herself, but is tempted to injure her child by unnecessary dosing. My inten-

tion has been to avoid these errors, and to give to the mother just that information which she needs as a mother, and not that which will make her believe that she can do without the services of a physician when her child is sick. A smattering of medical knowledge, is an especially dangerous thing. If the directions which I have given as to the care of the child in health, seem to be occasionally too particular and full, when it was not necessary, I can only say that these are just the points upon which mothers have frequently asked for instruction, and for which they have been especially grateful. I have had repeated occasion to dwell upon all these topics in conversation with mothers, and should have been glad of just this book to place in their hands.

New York, 279 Fourth Avenue.

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THE

HANDBOOK FOR MOTHERS.

Chapter I.

ON THE CARE OF THE CHILD BEFORE ITS BIRTH.

The mother's care of her child should commence with its very conception, and continue till it goes out to take its share in the responsibilities of life. Too many are either ignorant of this, or neglect to consider the child's welfare, till it commences its separate existence at birth; and yet, the popular belief in marks evinces a general opinion that the mother may influence her child, physically, while it is yet unborn. It is not decided to the satisfaction of the medical profession, whether or not objects producing great mental impressions on the pregnant woman, may leave their traces in spots on, or deformities of, her child. Many facts of interest have been collected—

some of which support one, and some the other view of the question. The mother's duty is, therefore, evidently this: to avoid, while *enceinte*, all situations in which she may expect to be exposed to meet sudden and disagreeable surprises; to avoid the sight of every strange animal or deformed person so far as is practicable; and if such sights or surprises are encountered, not to allow her mind to dwell upon them for a moment. That all the "strawberry" or "cherry marks," or "claret stains," or other discolorations of the skin, are the result of longings, there is little reason to believe — if, indeed, any can justly be entitled to consideration. The instances of physical marking are the exceptions. If, then, any one who reads this fears she has marked her unborn offspring, let her at once lay aside every thought of it. The possibility of it is very slight, and to indulge in anxiety about it, if it has any influence in this respect, is to produce the dreaded result — while the possibility of injury in other ways, from excessive anxiety, is not only possible, but probable.

I have said, however, that the mother should care for her child long before its birth. Although it may not be true that children are marked, it is undeniably so that the child's physical, mental, or moral

constitution may be permanently affected by the mother. The sickly, feeble mother rarely has a robust and healthy child. The mother of small mental abilities does not often bear an intellectual giant, nor does she who gives way to every impulse and passion, find in her offspring that gentleness and equability of temper in which she is deficient. These are the extremes; but within these limits the same rule holds true. To adduce authorities in support of these statements is not now my purpose, but rather to insist upon the practical deductions from them.

As soon as a woman knows, or even suspects, that she is about to become a mother, she should do everything in her power to give to her child a healthy mind in a healthy body. Not that she should indulge in such excessive anxiety upon the subject as to destroy her peace of mind—for that would defeat the very purpose which is aimed at—but that she should take that reasonable and intelligent care of her child, which shall, so far as she is concerned, permit it to cast no reproaches on its parents.

During the period of life within the womb, the child receives all its nourishment from the blood of the mother. By an arrangement most exquisite in

its adaptation to the purpose to be accomplished, the blood of the mother is brought into almost immediate contact with that of the child, a delicate membrane alone intervening, and through it those elements of the child's blood which are injurious to it are removed, while the elements of the child's growth are at the same time taken into its circulation. If then the blood of the mother is not fitted to nourish her own body, it cannot give to the child, in abundance, those nutrient materials the best fitted to build up for it a vigorous constitution. If her blood is not purified from those elements which are injurious, (as the gases which should be thrown off by the lungs,) the blood of the child cannot be purified to that degree which its well-being demands.

For these reasons, she who is about to be a mother should at once pay especial attention to her general health. Her diet should be simple and nourishing, not selected from spiced food, nor with an excess of stimulants, either solid or fluid.

There is an idea, not very uncommonly entertained, that if the mother limits herself very closely to just as little food as will barely enable her to avoid suffering from hunger — that is, if she almost starves herself — her child will be smaller, and she will there-

fore suffer less at the time of its birth. If such a course has such an effect, it must be by interfering with the development of the child, and thus giving the mother a sickly infant, in place of one that is healthy. No intelligent, reasonable woman can, it seems to me, thus deliberately entail upon her child a life of ill-health, that she may avoid a few moments suffering, for the difference that is thus produced in the pains is almost inappreciable.

In the most desirable, the most perfect condition of the mother, she finds herself with an appetite which is greater than ordinary, but which is satisfied with simple meats, fruits, and vegetables, with no sensation but that of perfect health, and except from her increasing size, with no intimation of the new life developing itself within, till her child commences its movements, or as it is commonly called, till quickening occurs. To this condition every mother should endeavor to attain. For this purpose care should be taken that the bowels are moved once every day, for when constipation occurs at this time it brings with it many discomforts and annoyances. The appetite even may fail, and both mother and child suffer in consequence. When constipation does occur, if slight, the more abundant use of fruit, the selection

of coarser food,—as cracked wheat or corn,—will frequently entirely remove the sluggishness of the bowels; but if this does not suffice, recourse must be had to some of the following modes of treatment. Simple water injections, neither very warm nor very cold, are good for those who are accustomed to them, or can, with convenience, use them. Several kinds of apparatus are now sold, which allow any desired quantity of fluid to be thrown into the bowels without the annoyance of removing for refilling, and with these, an injection becomes almost a luxury. When depended upon, the injection requires to be used at the same time of day, that the tendency may be to create in the bowels such a habit of moving that it may be dispensed with. Not more than a pint of fluid should be used, and it is not well to add anything to the water, as there is some danger, if that is done, that a miscarriage will be produced. If these methods do not answer the purpose, pills may be used, made of these ingredients:—

Take of powdered rhubarb, - - one drachm.
" " " jalap, - - - one "
" " " myrrh, - - one "
" " castile soap, - - one-half "

Mix and make sixty pills.

Acidity of the stomach. *Taking medicine.* *Habit.*

Should there be excessive acidity of the stomach, an equal quantity of *bicarbonate of soda* may be substituted for the myrrh.

Of these, if the constipation is very great, two may be taken every morning, and two every night, until the bowels move more freely, when one may be taken every morning and night, or what is better still, two at night, those for the morning being omitted. If these are found to answer the purpose too fully, one may be omitted,—and the other as soon as it is not needed. It is always to be borne in mind, that taking medicine is an evil, to be resorted to only to avoid a greater evil, and, therefore, it is to be omitted as soon as the occasion which called for it has passed away. Fruits and coarse food should continue to be used while the tendency to constipation lasts, and if they answer the purpose sufficiently, it is vastly better than a resort to medicines. It should also be remembered, that habit accomplishes very much in this respect, and a certain hour being devoted regularly to expecting an evacuation, is very apt to assist in the uniform performance of this function. Should these methods alone, or in combination, fail to afford relief, the medical adviser should be at once consulted, for the habit should not be allowed to continue,

—and the use of more potent remedies, requires the constant superintendence of a physician.

Sometimes from imprudence in diet, a sudden chill, or some other cause, the opposite condition — namely, that of diarrhœa — is produced, and demands immediate attention. Its continuance is full of risk to the unborn child. When it occurs, the mother should at once lie down (and it is better, from the anatomical arrangement of the large intestine, to lie upon her right side), and remain in that position. The effort to "keep about," which it is the temptation to make, is only a waste of time. Abstinence from food and drink for a few hours will do much, with position, to remove the difficulty. Cold water, especially, should be avoided — a pretty strong tea, either green or black, being far preferable. Toasted bread, rice, crackers, &c., are the best food, while a half teaspoonful of paregoric, or from five to ten drops of laudanum may be taken on a little sugar every two or three hours. If the attack is anything more than very slight, a physician should be called. I scarcely need to say that it is a suggestion of ordinary prudence, to avoid what has once caused, or been even suspected of producing diarrhœa. For those who are distant from a physician — as is the case with

many on the plantations of the South, or the scattered farms of the North—it may be well to have this mixture constantly by them:—

Take of	tincture of opium,	two	teaspoonfuls.
" "	tincture of red pepper,	one	"
" "	tincture of camphor,	one	"
" "	comp. spirits of lavender,	four	"

The dose of this is fifteen or twenty drops, to be repeated every two hours if necessary. It should be lessened as the disease abates, till six drops only are taken. Or a very small injection (not more than one or two tablespoonfuls) of a thick solution of starch, containing thirty or forty drops of laudanum, may be used; and, if necessary, may be repeated in three hours, provided there is no great drowsiness produced by it.

It is important, in the first months of pregnancy especially, that the urine should not be allowed to accumulate in the bladder so as to distend it excessively. Particular care must be taken to avoid this in journeying, or serious results may follow. This is a consideration of peculiar importance to the mother, but is not without it for the child. It does not require to be dwelt upon.

From the fact that a very considerable portion of

the substances, which arise from the wearing out of the tissues, is thrown off by the skin, bathing is at all times of hygienic value. The substances poured out upon the skin by the perspiration, whether sensible or insensible, should be removed frequently; requiring not simply a washing of the hands and face, but of the whole body. Its value increases at this period, and should be conscientiously attended to.

Exercise should be regular and gentle; if there is any known tendency to miscarriage, it should be *very* gentle. It should be in the open air as much as possible; walking in moderation, and riding in easy carriages are the best modes of enjoying it. Excessive fatigue, from any cause, should be scrupulously avoided, as well as jumping from a carriage, and all such jars as from horseback riding. Dancing, if violent, is injurious; if in heated rooms, and protracted to late hours, it is equally bad; but as the gentle and moderate recreation which it should be, it is harmless. The greatest care should be taken to avoid lifting heavy objects, from making great efforts to reach things not easily accessible — as those upon upper shelves, beyond easy access — and, in short, to avoid whatever may tend to produce any strain.

The same rule of constant moderation should be

observed in the operations of the mind. Excessive mental fatigue, whether from intellectual labor or from excitements, must be shunned. For this reason, it is sometimes necessary to lay aside for a time, the use of coffee — which is an active stimulant of the brain, leaving, after its effects have passed away, a proportional exhaustion. Moral emotions, as joy and grief, should also be kept within moderate bounds ; and if these, much more those which, when stronger, are more violent — as anger, jealousy, and hate.

The brief summing up of the mother's duties during this period, is this : — That she should strive to give every perfection to the physical development of her child, by carefully attending to her own physical condition ; and that, by the preservation of that uniform and equable temperament, both mental and moral, which finds its most perfect development in woman, she should, as far as possible, give her child this same precious inheritance, assured, as she may be, that the practice of this discipline and restraint will be richly repaid to her by the greater ease with which she will meet the constant trials which a mother endures, in the cares devolving upon her on the birth of her dearest infant.

Chapter II.

ON THE BIRTH OF THE CHILD.

At the time of confinement there is but little to be done on the part of the mother, for the benefit of the child. Her sufferings are sufficient, one would suppose, to occupy her every thought; and yet I have frequently seen a woman far more anxious to know that her child is safe, than that her pains are ended. The mother should remember that the birth of a child is a strictly natural function, one which is a healthy process, and not to be confounded with *sickness*, which it is so frequently called. It is a period of peculiar exposure to disease and injury, and I cannot conceive of an intelligent woman approaching it, without much grave thought, and something of that putting of her house in order which danger suggests. But she should remember that the vast

majority of her sex pass through these perils entirely unscathed, and that the best preventive of danger is, after having taken every precaution against it of which she is informed, to think no more of it, but to trust all to the great Disposer of events. If she has successfully followed the directions of the preceding chapter, she must be prepared completely for this period,—herself healthy, her child healthy, she has made every physiological preparation for the perfection of this physiological process. The expulsion of the child from the womb is simply mechanical, requiring in the vast majority of cases no interference. It is attended with more or less pain to the mother, this being Eve's legacy to her sex, but the pain is rarely if ever an indication of danger. Ether and chloroform now remove even this without interfering with the perfection of the function. Knowing these things, the mother should enter upon her confinement without anxiety, and endure her pain with that fortitude which is a characteristic of woman, leaving the care of herself and her child to her attendants.

It is for these reasons that the selection of the nurse and the physician, should be made with care and deliberation. To leave either to the last moment is unwise, as it is unsafe. The perfection of a nurse

is found in an intelligent woman; not so conceited as to be unwilling to be taught, nor so opinionated as to insist upon having her own way, regardless of the wishes of the patient, or the directions of the physician; who is patient and gentle, forgetting her own ease when the comfort and well-being of her patient requires it; not too talkative, and yet not morosely silent; not above doing whatever necessity demands; scrupulously neat, prudent, thoughtful, considerate, and kind. Such persons cannot be often found serving in this capacity, but the nearer the approach to it the better the nurse. Six weeks care by such a person, will do wonders for the mother and the child, and money expended for her wages, will be largely returned in their increased health and comfort. The nurse should be engaged for, and be present at, the time of confinement.

The physician should be a gentleman,—not in manner only, but in feeling; of high moral and intellectual qualifications; attentive, sympathizing, calm amid dangers, with a wise head, a brave heart, and a skilful hand. Age does not, of necessity, bring any of these virtues, and a young man who possesses these qualifications, should be preferred to one who is destitute of them, or, if he be not fully occupied, to

his equally able elder who is crowded with occupation. He should be personally agreeable to the patient, and one to whom she can trust herself with perfect confidence. Either of these conditions being uncomplied with, may protract the labor for hours. A great and constant doser is to be avoided, as is also the timid and vaccillating. It is wise for the patient to see the physician two or three times before her confinement, that there may be no feeling as of a stranger's presence, but that he may be welcomed as a friend, whose very presence soothes.*

There is but one emergency which is likely to arise, of which it is necessary for me to speak. Although the mother is not often able to give directions concerning it, she sometimes is compelled to do so, or allow her child to die in the moment of its birth. I refer to the birth of the child in the absence of the physician. If this occurs,—and it sometimes will in spite of every precaution,—the child should be allowed to remain upon the bed, protected from the cold, with access of the air to the

* As to female practitioners, I would gladly recommend them, could I do so conscientiously, but they are usually very imperfectly educated, and I would no more trust to them than to a student just commencing medicine. When this defect does not exist, the instances of which are very few, there is the objection that woman has not the mental and physical powers which may be demanded,—no one can say when. No doubt, however, *some* women are to be preferred to *some* men.

mouth, that it may be able to breathe. The nurse should pinch the cord which goes from the child's navel tightly between her thumb and fingers, so as to stop the beating in the arteries of the cord beyond her fingers. She may take hold of the cord for this purpose about six inches from the child's body. If the physician is expected to arrive soon, and there is no flowing from the mother, or severe fainting, she should continue thus to hold the cord till he comes. If he cannot be present for some time, she may tie the cord, proceeding in this way: take a strong string (a piece of stout sadlers' silk is preferred by me), twelve or fifteen inches long, and put it round the cord once, tying it in the usual way of a single knot. It should be about two inches from the child's body. Then it should be drawn tight, so as entirely to stop all beating beyond it, the precaution being taken not to let either hand slip, for fear the cord should be torn away from the body of the child, which is a very grave accident. This may be avoided by taking the string between the thumb and forefinger of each hand, allowing it to pass across the inside of the others and over the little fingers. The thumbs should now be pressed together and the string drawn tight by separating the little fingers. The hands will thus

roll on each other, but will not be likely to slip away from their position. The knot is secured by another tie, that is, it is made a hard knot. The ends should not be cut off yet. Another similar string must now be tied round the cord about two inches farther from the child than the first one : and then, with a sharp pair of scissors, the cord may be cut in two. All this should be done in a good light, and especial care should be taken that a toe or finger is not included in either string, or much more, that nothing is in the way of the scissors so as to be injured by them. After the cord is divided, the cut end next the child, should be wiped clear of blood, and then carefully examined to be sure there is no bleeding from it. If it does bleed, the cord must be again tied a little nearer the child's body than the first string, and with the same precautions as before. The cord, however, is not to be again cut. When it is ascertained that there is no bleeding from the cord, the ends of the string may be cut off within an inch of the knot, and the child may be carefully wrapped in a warm and soft blanket or sheet, and kept from all exposure to the cold, it being allowed air enough to breathe.

Sometimes it happens that the child does not

breathe when it is first born. This should be thought of; and if it is found to be the case, the child's naked chest should be blown upon, with short but vigorous and repeated puffs from the mouth; its chest may be rubbed smartly with the hand, or a towel—with or without the aid of spirit; or it may be sprinkled with cold water, smartly snapped with the hand; or a little cold water or spirit may be taken into the mouth, and spirted upon the chest so as to strike it with some force; or, if these fail, the nurse should put her mouth over the mouth and nose of the child and blow up its lungs, at the same time that the other means continue to be used. Very rarely will all of these measures fail to produce the desired result. When breathing is fairly established, the child should be allowed to remain without separation of the cord, till all the purple color has passed off from the face, and then the nurse may proceed as before directed to tie the cord.

If there is very great bleeding from the mother, or if she is very faint, some one else should be called to hold the cord, as before directed, while friction is made over the lower part of the abdomen to stop the flow; or cloths are applied, wet with cold water or containing pieces of ice; while, at the same time, the

usual restoratives for fainting are resorted to, such as spirits of hartshorn, laying the patient flat on the bed, and giving her a little brandy. If no one else is present, the nurse should put on the string as first described, and then attend to the mother, leaving the application of the second string, and the cutting of the cord, till the mother is in a safer condition. But the care of the mother is incidental to the subject of the chapter, and one upon which its purpose does not allow me to dwell.

It may be a question for some, whether or not they can, so far as the child's welfare is concerned, use ether or chloroform at the time of their confinement. This, evidently, is not the place for discussing all the views which are entertained concerning the use of these agents. They are regarded very differently by different practitioners; some objecting entirely to the use of either, some preferring one and some the other. Although I have had frequent occasion to use both, I have yet to see any injurious effects from them, when given at the time of labor. I prefer chloroform when it is pure, being very careful in selecting that which I use. To the mother the relief from suffering which it affords is immense, the recovery being often very much hastened by it. To the

child there is no injurious effect when the labor is of a natural length, and I have never seen any harm arise from using it when the labor was protracted, though it is said to have been witnessed. I always use chloroform without hesitation, unless the patient objects to it, when I, of course, do not insist upon it.

Chapter III.

CONCERNING THE FIRST MONTH.

The care of the child immediately after its birth, and during the first month of its life, is a matter of great importance to its future well-being. The mother is not often able to attend to this herself, but she can usually see that everything is done properly. With a perfect nurse no oversight would be necessary, and, in fact, the mother would learn much from her. But perfection is as rare in this occupation as in others, and it is often a great satisfaction to the mother, and a great advantage to the child, that she is able to give directions concerning its care to her attendant. As to herself, she should not attempt to do anything that another can do ; rest and quiet are of great importance to restore her rapidly, after her fatigues and exhaustion. It is a great saving of

time for her not to hasten her getting up. Sitting up too soon—and it is no matter if it is not attempted for a fortnight—frequently does injury which involves years of ill-health and suffering.

The child, after the cord is cut, and it has been ascertained (by looking once or twice on purpose to see) that there is no bleeding from it, may be laid in a warm place, carefully protected from currents of air, and covered with sufficient light but warm clothing; and it may be allowed to remain so till the mother has been made comfortable, and left for a little rest. During this time it is, of course, necessary that it should be allowed to breathe fresh air, and not be exposed to be smothered. When time is found in which nothing is more imperative, the infant should be washed. For this purpose a hand-basin of good size, or a very small tub, may be used, and about one-half filled with warm water. The child has just come from the temperature of the centre of the mother's body, and to put it in water much below blood heat is to expose it to a great shock. To use cold water, as is sometimes done, is unjustifiable; for although a very robust infant may not suffer from it, the chances are, at the best, that it will take a violent cold. Too hot water is also to be avoided.

Very soft sponges, soap, towels, and old, soft linen should be provided in abundance, and the clothes which are to be put on after the washing, should be conveniently arranged.

It is sometimes a problem how to take up the vigorous child, covered as it frequently is with a slippery, unctuous matter. When this is necessary, the little finger of the right hand may be put in the armpit of the child's right side, and the thumb of the same hand in the left armpit, the other fingers reaching up to support the head — the palm of the hand supporting the back — while the left hand takes hold of both feet firmly, the forefinger passing between the legs just above the ankle bones, against which it is firmly curled. It is hardly possible, when held thus, that the child should slip out of the hands, and there is no danger of hurting it except by grasping the feet with too great force, such as no sensible person would use.

Everything being arranged conveniently, the child as it lies in the lap, may be first covered with a lather made in the sponge ; and this, after being rubbed in, should be removed with water, and the surface wiped dry with the towel. The body may be washed first and dried ; then the legs, the arms, and

the head ; each being dried as soon as it is clean, that there may be no exposure to cold from the evaporating surface. If more convenient, the child may be put in the water, though this is not usually so well, because the soap soon makes the water turbid, and the child's body cannot be seen, when it is impossible to tell whether or not it is clean. The difficulty in the first washing is to remove the cheesy matter on the surface. For this purpose nothing is better than soap, but it should be a delicate, not a coarse soap. The old brown Windsor is a favorite, and excellent variety. All of this matter should be carefully removed, especial pains being taken with any creases that may be found, and with the hair. The soap should be carefully kept from the eyes. Oil, lard, or egg, are frequently ordered to be applied to the surface, before the washing, with the notion that they remove this cheesy matter more readily. I have, however, never seen anything but annoyance from them, and now advise simple soap. After the washing is completed, if the child is cold, it had better be wrapped up snugly in a warm and very soft blanket, and allowed to get warm before the dressing is proceeded with.

This first dressing is a matter of some moment,

What to do to the cord.

and not very easily accomplished, unless one has some skill or tact in it. The child is small, without power to hold up its head, or to keep its back stiff, and to fit its clothes about it requires much patience and dexterity. The first thing to be done is to dress the cord. The string about it may be cut off, so that the ends are only an inch on each side from the knot. Either of these two methods may then be followed: *First*, take a strip of old and soft linen, half an inch wide and six inches long, and wind it round the cord as if it were a finger, till it is entirely covered, securing it with a piece of thread or light silk. The cord may then be curled up on the navel, and the belly-band applied over it. Or, *second*, a piece of old linen three inches square should be taken, and two cuts made through its centre, crossing each other at right angles, and making a sufficiently large opening to allow the cord to pass through; put the cord through it, double it together so as to include the cord between its sides, and wrap them round the cord, securing them as before with a thread. The belly-band goes over this. Nurses will frequently insist upon laying a "burnt rag" over the cord, and under the belly-band. It perhaps does no harm, but it is filthy looking, and does no good. It is as well

omitted, but if the nurse cannot conquer her prejudices in its favor, it is not worth while to have any contest about it.

The belly-band should be of fine and soft, but firm flannel, about four inches wide and about eighteen inches long. It is better to cut it straightways of the cloth, not "bias" as has been recommended. If this is done, the pressure comes just where it is most needed, and the flannel, by use, stretches so as to fit the body. In dressing the child, the middle of this should be put over the navel, one end lapped over the other, drawn pretty firmly, and fastened so as not to slip. There will be less danger of its sliding up on the body of the child, if the lower edge is drawn a little tighter than the upper. The clothes of the child may now be carefully put on, no violence being used, either to bring an arm into a convenient position, or for any other purpose. Custom, differing in different sections, dictates what the style of clothing shall be. It is of little importance, so long as it answers these conditions, viz: to keep the child warm enough, but not too warm; to be light, and nowhere tight. It should be borne in mind, however, that the newborn infant requires to be carefully guarded from the depressing influence of cold, and

that it feels this sooner than older children. Feeble children should especially be defended from it, and whenever their feet are found to be too cool, they should be thoroughly warmed. I do not know of a more complete illustration of comfort, than is afforded by a young infant lying in the nurse's lap, and enjoying the genial warmth of a fire. It seems full of happiness to its very toes.

If, in washing the child, any real or supposed deformity is found, it is best to consult the physician at once, concerning it. If it is not real, it will be a relief to the parents to know it. If it needs attention, it may be of importance that it should be given to it at once.

After the child is dressed, it may be laid on a soft pillow and allowed to sleep. The fatigue of being born, and then washed and dressed, is such that it will often sleep a long time: which it should be allowed to do without disturbance. If it cries, and will in no way be pacified, it may be necessary to give it some food. It should then be allowed to nurse, or at any rate to take its first lesson in sucking. It is true that the mother's breasts contain but little milk, but that little is usually sufficient for the child. That it may be able to draw the milk, the

child should be placed by the mother's side, supported on a soft pillow by the nurse, and the nipple put in its mouth. Its head will require to be supported also, and all of this should be done by the nurse, that the mother may not be too much tired by it. If the child succeeds in drawing the breast, it will be satisfied, though it gets but very little, and it should then be allowed to go to sleep. In two hours, if it is awake and cries as if for food, it may be allowed to try the other breast in the same way. It is every way desirable that the child should thus get the fluid in the breasts. Not only is it natural for it to do so, but this first milk differs from that which is subsequently produced, having somewhat of a cathartic effect. This is very desirable, because it moves from the bowels their secretions, deposited in them before birth. Should there continue to be sufficient milk in the breasts to satisfy the child, it may continue to nurse, but not oftener than once in two hours. After each time that the child takes the breast, it is well for the nipple to be carefully dried, by gently pressing it between folds of soft linen.

Occasionally it happens that there is not, in the mother's breasts, any fluid at all for one, two, or even three days after the birth of the child; and it

very evidently will not answer to allow the child to go so long as this without any nourishment at all. Infants will, however, sometimes go twelve hours without feeding, and this may be safely allowed. When this is the case, nurses are bewitched to give the child a teaspoonful of molasses with water, or some more nauseous dose, to move the bowels. I very much prefer to this, when anything is necessary, a few drops (say ten) of the aromatic syrup of rhubarb, for the reason that molasses very frequently causes quite severe pains in the bowels, while the rhubarb almost never does; it seems, too, to leave the bowels in a better condition. Usually, no medicine is necessary, or if used at all, it is better deferred to the third day. To oblige the infant to commence life with a dose of medicine, is repugnant to one's feelings, and often injurious to the child.

The preparation of food for artificial feeding requires great care and attention. The milk which usually fills the breasts should be imitated as nearly as possible, for this is the provision which nature has made for the nourishment of infants, and man does not often improve on her in these respects. Cracker water, panada, arrow root, or anything else of this class, should not for a moment be thought of; for,

although a child does not necessarily die if they are given to it, it suffers exceedingly from them. The very best substitute for the mother's milk, till it "comes," is made by adding one part of fresh cream (country cream, I mean) to ten of water, and to this add a teaspoonful of loaf sugar for every gill, mixing it fresh every time. With this, made about milk-warm, the child may be fed, if necessary, every two hours (not oftener), till the mother's milk comes, when it should be at once placed upon that more natural diet. During the whole time that it is thus fed, it should be put to the breast before each meal, that it may learn to suck, and that the sucking may, as it does, hasten the appearance of the milk. About a gill of the mixture will be required by the child, at a meal, during these few days. The mode of giving it to the child will be described in the chapter appropriated to artificial feeding.

The flow of milk being fully established, the child needs no other food. It should by all means be confined to this, so long as it is sufficient for its wants, unless, as very rarely happens, it does not agree with it. To the extent that the natural supply is insufficient, artificial methods have to be resorted to, but are always to be considered as evils, to be avoided if possible.

One of the earliest developments of the human nature of the new-born infant, is its facility in acquiring habits, and obstinacy in retaining them. The comfort of both mother and child depends very much upon bearing this in mind from the first. The following directions will be found to be of importance.

Of Nursing.

Once in two hours is often enough for the new-born child to nurse during the day, and once in three hours during the night. The habit of putting the child to the breast every time it cries, should be shunned for the sake of the mother, and for the sake of the child. On the part of the mother it entails great labor, the child becoming more and more exacting as it grows older, and being less easily contented during her necessary absences; a more grave consideration is that if the child is almost constantly nursing, as it is held, it keeps up a constant drain upon the nervous system of the mother, and allows no time for her to rest. Delicate women feel this exhaustion exceedingly, but it produces a marked effect upon the strongest. On the part of the child it is objectionable, because it does not allow any time for the stomach to rest. For the perfect perform-

ance of the functions of the stomach, it is necessary that there should be, after each meal, sufficient time allowed for its complete digestion and disappearance from the stomach, together with a period during which that viscus shall be empty, before another meal follows. Two hours is the shortest time in which the amount of milk taken by a child, at a full meal, can be digested, and the stomach have any time of rest. If, then, before that time has passed another quantity is poured in, the digestion of the first is incomplete, while the stomach is unable to grapple with and subdue the second. Every one knows the effects of eating too often, and the child is not exempt from them. In the adult, the effect of taking the usual amount of food during the day, but in smaller quantities, with shorter intervals, is to disturb the digestion very much ; and it is just this evil which should be avoided in the child. Early attention to this will create a habit of regularity, and the child will not desire to nurse oftener than is desirable. All the annoyance caused by the child crying for the breast, or insisting upon lying in the mother's arms with the nipple in its mouth, is avoided. Neglect of this direction will bring with it a series of inconveniences, which will tend to

Lengthening the interval between meals. *Regurgitation not vomiting.*

make a slave of the mother, and a glutton of the child.

With the increase in the age of the child, the interval between meals may be lengthened, so that, when the child is six months old, it should be about three hours. The judgment of the mother must be used in this matter, for it is impossible to lay down absolute times for absolute ages, and expect every one to exactly conform to them. I point out the general principle; it is the mother that must put them in execution, adapting them to the peculiarities of the child.

It is often the case that children throw up a portion of the milk they have swallowed. If it occurs immediately after nursing, and is not at all sour, it is simply indicative of the fact that the stomach was too full. As it contracts to its proper dimensions, that digestion may commence, a portion of the fluid which distended it escapes in the only direction possible — that is, by the mouth. This is simply regurgitation and different from the vomiting of sickness. The remedy for it is to remove the child from the breast before it has taken as much as it is accustomed to draw. If allowed to continue, the stomach may become seriously deranged.

The child should sleep alone, for its own sake and the mother's.

Of Sleeping.

It is a rule which should not be forgotten or disregarded, without the most stringent necessity, that the child should not sleep with its mother. Here, again, the force of habit must be borne in mind, and the child must not be permitted to learn what it must afterwards unlearn with so much trouble. The new-born child should, after nursing, be laid upon a soft pillow away from its mother, and allowed to take its nap undisturbed. If this be not done at once, the difficulty of subsequently commencing it will be increased. Thus left to itself, with coverings suitable to the season, it will enjoy a quiet and refreshing sleep; while the mother, who will be not a little fatigued, will also be able to place herself in just that position which will most rest her; will be able to sleep without fear of turning over upon her little one; or, if she prefers it, can be bathed or take her meals without endangering the child's rest. But if the child is allowed to sleep by her side, this cannot be. If she sleeps, it will not be soundly, or without anxiety. Her position will be constrained, or if she moves, it will be to disturb the child. She cannot eat till the babe wakes; she cannot be

bathed or rubbed while the child sleeps—and if this be, as is often the case, till it desires to nurse again, she finds herself unrecruited, but compelled to undergo a new fatigue. Both mother and child, then, are from the first benefited by sleeping away from each other. With the increase of the child's age, the advantages of so doing become more and more apparent. The mother sooner regains her strength, and furnishes to the child a more abundant and richer milk. The child thrives better, and is more healthy, and the time never comes when it has to learn, with many hard turns of crying, to break from its first habit. Every physician knows how apt it is to be the case, that young mothers, whose children are about a year old, complain of constant fatigue and debility; dragging themselves about only with great effort, and sighing for a single night of refreshing sleep. With a healthy child, by attention to the advice just given, this fatigue may be in very great measure avoided. It is comparatively nothing for a healthy woman, to nurse a child twice or three times a night; but very few can endure the fatigue entailed upon one by allowing a child to lie upon her arm, or close to her side, for the whole night.

What the child should sleep in. *The bed clothing.* *It should be dry.*

What the child should sleep in, is of less moment. A large clothes basket often holds the pillow and the child very comfortably for a few months, and has the advantage of having no rockers for every one to strike their feet against, and occupies but little room. A crib is a very good thing, though larger than is at first necessary. A cradle is about the worst thing, especially if it be of the old fashion, with high, solid top, shutting off every breath of fresh air. During cold weather, if a basket, or other low bed is used, it should be placed on boxes or chairs, especially during the night, so that the child may not be exposed to the cold currents which sweep about the floor. The bed should be soft and warm, and the coverings sufficient for the season,—light, but not too thin—warm, but not too heavy. It seems scarcely necessary to do so, and yet I will add that the most scrupulous care should be taken that the child's bed should be kept dry and sweet. The infant should never be put into sheets that are at all damp; and however much the nurse may try to shirk her duties, it should be insisted upon, that she should change, or at least dry the sheets and bed after every wetting.

Cold baths objectionable. *A meal should follow the bath.*

Of Bathing.

Every morning the child should be put into a bath. The not uncommon idea, that cold water is preferable for this purpose, is erroneous. No doubt a hearty, stout child will, if kept in cold water but a short time, have sufficient reaction to make it thoroughly warm, but this is not the case with the majority of children, if they are allowed to remain in the water sufficiently long to be thoroughly washed. Their pinched features, and cold extremities, show that they have not been benefited, while the terror the sight of water often inspires in children thus treated, should suggest the discontinuance of the practice. If warm water is used — and it may be at first about blood-warm — it will be found to be very grateful to the young child. It is, in fact, more like the condition of its existence previous to birth, than when it is wrapped about with clothing. The child soon learns to expect the bath at a certain time, and is restless unless it receives it. A bath, followed by a meal, seems to be, in health, a sure precursor to a sound nap in the young child. The meal should follow, rather than precede the bath, for this reason ; but an additional one may be found in

the fact that unless this is done, the bath interrupts and interferes with the digestion of the food in the stomach.

The rule, then, should be established, that the child should have a warm bath every morning, to be followed by a good rubbing with a soft hand; it should be dressed and then be allowed to nurse. A nap after this process, gives the mother an opportunity to attend to other duties, or rest herself if fatigued. This system should be commenced, at once, by the monthly nurse, and carried out by her. When neglected—even if a sponge bath is substituted for it—it is sometimes difficult to establish it, the good of the child being made to yield to momentary convenience, or the child being fearful of what has become so strange to it. For a healthy child, it is not necessary to add anything to the water, but when it is feeble, salt may be of advantage. One or two tablespoonfuls of this will usually be enough for the quantity of water necessary for the bath. Nothing else should be used, except by the direction of a physician. It seems scarcely necessary to add that the child should be guarded against taking cold, as it comes dripping out of the tub. For this reason, it is well to have a warm, soft blanket

ready to wrap the child in at once, allowing it to remain a few moments, that a portion of the moisture may be absorbed, and then opening it enough to allow a portion of the body to be wiped dry by soft, thick towels, without exposing the rest. This may seem an excessive minuteness of particulars, but there is danger, even of lung fever, from unnecessary exposure in this way; and when persons are not aware of it, it is a kindness to caution them.

If a full bath is not practicable, for any reason, a careful sponging with warm water should not fail to be substituted for it. By many it is preferred, but I think without good reason.

It will be observed that I have said nothing about the use of soap. The fact is, that too much of it may be used, as well as too little. None but the blandest variety should ever be used, and this should be applied to those parts in which there is especial need of cleanliness, from their liability to become soiled. A child that is bathed every day, does not need to be scrubbed like one to whom it is a monthly treat. There is a farther and serious objection to its use, from the fact that when its alkali is in excess, as is frequently the case, it destroys the natural secretion, which keeps the skin soft and plia-

able, and the surface becomes dry and rough. Some cutaneous eruptions seem to owe their existence to this excess of a good thing, and cannot be cured till a more moderate use is made of it.

Of Dress.

It is a consideration of great moment how the child is dressed. On this, more than almost any one thinks, depends the future health of the individual. No doubt some children would live through almost everything in the way of exposure, but that is far from demonstrating that it is desirable for all to be subjected to great risks. It is often said the Spartans were, and savages are, more vigorous and robust than modern and civilized people, because of the hardening process to which they were subjected in infancy. But in this statement (if it be true of the adults, which is doubtful), no regard is had to the effect of the exposure on others. How many delicate ones must have yielded to the trial, which none but robust ones could endure. Yet, to a nation, the lives of those delicate ones are often of the greatest moment. An athlete is not, necessarily, a wise man; neither is one who is not equal to the arduous labors of the field, or the contests of war, or the exertions

Depressing effect of cold. *Materials for the dress at different seasons.*

required of those who "go down to the sea in ships," of necessity a useless citizen. Quite the reverse is true, and the safety of the delicate is a matter of great moment.

The same is the fact with regard to families; and among those in which the hardening by exposure is resorted to, the success is not such as to make it very attractive. I have before alluded to the fact, that cold is a depressant; having a tendency when continued, to lessen the vital force, and, in time to destroy it. This is taught by the very rudiments of physiology. Why, then, should a young child be exposed to such influences, when there is in fact, no occasion for it?

The child's dress is a matter of fashion, differing at different times, and in various places. During the heat of Summer, it requires to be light and unirritating. Very delicate linen, or cotton, seem to be the best materials for it; the linen being the cooler. If there is any tendency to diarrhœa, or if, with this clothing, the child's feet are habitually cold, flannel must be added. That which is to be next its body, as for a shirt, should be very soft and delicate, to avoid irritating the surface and bringing out troublesome eruptions. That which is not to be

immediately in contact with it, as for petticoats, may be thicker, though it should still be soft. As the weather grows colder, the proportion of woollen garments should be increased ; the effort being so to regulate it as to keep the child just comfortable, not too cold nor too warm. For a country so extended as ours, it is impossible to specify the particulars of dress which shall be adapted to the almost arctic winters of the North, and the torrid climate of the South, with all the intervening grades of heat. What has been said, is sufficient for the direction of persons of common sense. Against one thing, however, I must protest, and that is the excessive exposure of children, by blind obedience to fashion, in making their dresses very low in the neck, and with very short sleeves. I know it is very beautiful ; I am very fond of seeing and kissing their little fat necks, and I like to squeeze their dumpy arms. Still I the more earnestly protest that, except in constant warm weather, when fires are not needed, or when the whole house is of a uniform warmth, it is a very great exposure. I shall again allude to the subject, when I speak of children that are older ; and therefore here add only, that where the climate is cold, or where sud-

den changes of temperature are frequent, the child's dress should come well up in its neck, and at least to its elbows. My experience teaches me, however, that almost any direction will be followed by mothers, sooner than this. But this fact, does not lessen its importance.

Hitherto I have spoken of the day dress of the infant. The night dress should be made with reference to the same points. The very common exposure from throwing off the bed clothes, requires this to be made rather thicker in proportion. It should be loose enough not to bind anywhere, but still close enough to turn with the movements of the body. A shirt and a night-gown are usually sufficient, though a petticoat may sometimes be necessary, in addition. During the Winter, the night-gown should be of flannel, thin, or thick, according to the climate; for it is evident that in Maryland, there will not be the same necessity for warm covering that there is in Maine.

Of Exposure to the Fresh Air.

By the close of the first month it is well, if the weather is mild, to accustom the child to be carried out of doors by its nurse, for a longer or shorter

walk, every day. The dress must be, of course, varied from that which it has worn in the house; the head being covered, and the chest and feet being protected from the cold. It is quite surprising, to one who has not observed it, how soon infants learn to expect their walk, and to what an extent it affects their temper during the whole day. It is not necessary to describe the influence of pure air upon all persons. It is only necessary to say that children show more readily than others how important it is; when carefully protected from being chilled, they will, during this period, enjoy, and be benefited by, being carried out of doors, even in the coldest climate of this country. The irritability which all are subject to, sometimes disappears at once under its influence.

It is not only the air, but the light, which is beneficial, and which should be carefully furnished to children. Plants that grow in dark places, like cellars, show the change which insufficient light produces in them. Somewhat similar effects are produced in children, if they are not abundantly furnished with this vital stimulus.

The best rule is, for the child to be carried out every day that is pleasant, all the year round;

The proper time for the walk in Winter and in Summer.

in Winter, about the middle of the day, and in the sunshine—in Summer, as early as convenient in the morning, after the sun has risen sufficiently to drive off the night fogs and dampness.

During the hottest part of the day, in the warm season, it is better for the child to be at home, or if carried out of doors, its nurse should sit quietly with it in the shade of a tree. A refreshing sleep is often thus enjoyed by the child.

No one, who has seen the marked effects sometimes produced by a walk or ride, upon sick or convalescent children, can for a moment doubt its importance to them. One can thus understand, if farther argument is necessary, why the healthy child should always be accustomed to that, which in disease, or after the disease has passed away, is its best restorative.

Chapter IV.

OF WET NURSES.

In what has heretofore been said, it has been presumed that the child is nursed by its mother, and this is evidently the *natural* way of nourishing the infant. This is not always possible, for it occasionally, though very rarely, happens that the mother's milk disagrees entirely with the child, and to save its life, it is necessary to find some other food for it. Sometimes, too, in consequence of accidents at the time of birth, or subsequently; or from some other reason, the mother's milk disappears, and her breasts yield nothing for her offspring. At other times the mother's health is so affected by nursing that it becomes a necessity to choose between her safety and the risk to the child of changing its diet. In such a case, when every means has been tried in

The mother sometimes more heartless than a heathen.

vain, to restore her to health it is necessary to incur this risk to the child, rather than sacrifice her life.

Sometimes this method is considered necessary that the mother may retain her beauty, keep back the traces of time's progress, or not be interrupted in her attendance upon the dissipations of fashionable life. It does not seem credible, and yet it is undoubtedly true, that occasionally a mother is so hard-hearted, so indifferent to the good of her offspring, or so given up to fashion and frivolity, that she prefers her own selfish gratification to the welfare of her child. Strange and cruel! I confess that, to my mind, there is a fearful resemblance between the devotee of fashion, who obliges her child unnecessarily to incur the perils of artificial feeding, and the Buddhist devotee who drops her child into the sacred river Ganges. The one does it for her own gratification, the other that the child may sooner enter a more blissful state. Oh, enlightened, Christian woman! do not a deed worse than that of the heathen infanticide!

When it is impossible for the mother to nurse her child herself, it remains either to get another woman to nurse it — that is, a wet nurse — or to feed it in some other way. To the latter is applied the term

of artificial feeding. The wet nurse is to be preferred, for the child's good, to feeding, but a choice is not always practicable. I will first speak of wet nurses.

These are by mothers almost always considered as nuisances. I mean when they come to live in the house with the mother. There is almost universally a certain jealousy on the mother's part of any one who nurses *her* child, and from this cause little things become great evils. The nurse on the other hand usually feels her importance to its full extent, and assumes airs, as annoying as they are impertinent. She must have her own way for fear that crossing her will make her angry, and suggests to the mother that that will make the milk hurt the child. She must, according to her statement, have sound sleep, and the best of everything to eat, and in enormous quantities, so that she may furnish a rich milk to the child. In short, she avails herself of the mother's love for her child to tyrannize over her, and to make herself as comfortable as she can desire to be. Wet nurses usually intend to live on the fat of the land. Their wages, too, are quite high, so that to those in moderate circumstances almost every inconvenience seems to centre

in them. In a city a wet nurse should never be permitted to take the child to her own house, away from its mother's oversight. The temptations to neglect it are too great for its safety.* In the country, where the mother can daily visit the child, it will answer, if the nurse has lost her own child, or if the nurse has milk enough for two children. It is but nature, where two are nursed, that the foster-child should come off second best; it going short if either does, and being fed if either must. Still, knowing all these inconveniences and annoyances, I do not hesitate to say that, if it is necessary to take the infant from the mother's breast, every effort should be made to obtain for it a healthy wet nurse. It is the less of the two evils, so far as the child is concerned, and should be cheerfully borne for its good.

In selecting a wet nurse, it should be borne in mind that the condition of her health, as well as her moral character, will have a certain influence upon the child. She should be perfectly healthy, and to ascertain that this is so, it is frequently necessary to

* At the Demilt Dispensary, where I have, in the course of the year, some 1200 children come under my care, I find that if one is brought in who is not the nurse's offspring, it rarely recovers so rapidly as others, and if very sick is almost sure to die from neglect.

cause her to be examined by a physician. There are so many particulars which are of importance, but which do not attract the notice of unprofessional persons, that this is the safest course. She should be free from the taint of hereditary or other constitutional disease, that the child's constitution may not be contaminated.

The mother may be aided, however, in making her selection by bearing in mind these points:—

1. The nurse's milk should be of about the same age with the mother's; that is, her child should have been born at about the same time with the one she would nurse. The milk furnished by a woman varies at different times, changing from the first that is drawn, to the last. A woman with a new breast of milk—that is, who has just been confined—is not fitted to nurse a child who is six months old; neither is a woman with a six months' breast of milk, the best fitted to nurse one just born. Exact equality in age is rarely to be obtained, without sacrificing some other points of equal importance. This is, however, a consideration of less importance after the infant is six months old. After that time it is safer to choose a woman who has not nursed more than six months.

A childless woman to be preferred.

2. If there are two women — in other respects of equal qualification — one of whom has a child still living, which she has put out to nurse, but the other of whom has lost her infant,— without hesitation select the latter. This difference, too, should lead one to make the same choice against some of the more unimportant advantages possessed by the other. The reason is a very simple one. The woman who can, for the sake of money, leave her child to the care of others during its early infancy, must have moral impediments to being a good nurse. Sometimes, it is true, she may be in a condition as to means, which compels her to such a course, but then her motherly instincts will lead her not unfrequently to visit her own child, and of course to nurse it. The danger of contracting contagious disease is, in this way, very great. Her heart will pine for her own forsaken one, and should it fall sick she will, as she ought to do, abandon all her advantages of situation and her dependent foster child, whether it be in the middle of Summer or not, that her own child's life may not be sacrificed. The nurse who has lost her child, has none of these duties to another; and although her own grief will for a time sadden her, she finds a solace for it, in transferring her affection

to the child which has taken its place. I have often seen nurses who, under such circumstances, seemed to love their nursling with a mother's affection.

3. The age of the nurse should not usually be under twenty years, or over twenty-eight, this being about the period at which they are most apt to yield a rich, healthy milk.

4. A woman with brown or black hair, should be selected in preference to one with light or red hair; and of the last two, the former should have the preference. The reason is simply this, that light haired women, although they often have more milk than those who are of a darker complexion, do not furnish in it, so much nourishment; their milk is more watery, though it may be more abundant. Red haired women are apt to be quicker to become angry, and to have tempers not so well regulated as others.

5. The nurse should be of good form and plump, with a white, hard breast, marbled with bluish veins, and a nipple of good size, perfectly free from cracks and eruptions, with gums firm and red, and with good teeth. The general appearance of the face should be that of health.

6. After what has been said of the influence of

the mother's temper upon her child, it is scarcely necessary to add, that it is desirable to select for a nurse, a woman of gentle disposition, and of a good degree of intelligence, rather than a stupid and irascible one.

It may be, to some readers, of use to say, that wet nurses very rarely need beer, ale, or other malt liquor, to enable them to perform their duties. These drinks are often necessary to a feeble mother, to enable her to bear the drain upon her; but a woman who requires them ought not to become a wet nurse. The habit of taking stronger liquors, as brandy, gin, or whiskey, is a good and sufficient reason for rejecting a nurse. Their influence on the child is injurious.

When all these points are carefully attended to, the mother has done all in her power to provide her child with the most natural and best nourishment for it. The nurse's diet and habits, should be controlled by the mother, and regulated in accordance with the principles which I have laid down for her guidance.

Chapter V.

OF ARTIFICIAL FEEDING.

When it becomes necessary to resort to artificial feeding (and necessity alone justifies one in so doing), it should be understood that a very great labor is undertaken. Success in it is only to be obtained by the most constant watchfulness and attention on the part of the mother, whether she takes care of her child herself, or employs a dry nurse.

The mother's milk is the natural food for the infant, and to draw it from the breast is the natural mode of taking it. In artificial feeding, both of these conditions should be imitated as closely as possible.

The milk of the ass more frequently agrees with children than that of other animals (the reasons for

this will presently appear), but in this country it is very rarely to be obtained. The cow and the goat are the animals most depended upon for milk, and that of both differs from woman's milk, and requires some allowance to be made on this account. The selection of the animals from which the milk comes is the first thing, and is sometimes a matter of great importance. The goat should not be depended upon, unless good cow's milk is not to be had. Its milk has a strong and disagreeable flavor, though it is said that one soon becomes accustomed to it, and rather misses it in other milk. But the goat can be bought for a lower price than a cow, requires less food, and can be kept in a smaller place. A good milker will give quite enough for an infant, and can be kept even in cities without very great trouble. In the country, too, it picks up a good living where other animals, unless it be sheep, would starve. Of course it furnishes fresh milk for the child twice a day, and without adulteration. In buying a goat for this purpose, choose one that is young, of good size, and whose kid is quite young. Those of a pure white color give milk almost free from the disagreeable flavor to which I have alluded, and are, therefore, to be decidedly preferred. The breed that

have no horns have been said to give sweeter milk than others, but this is not proved to be correct. Boiling almost entirely removes the taint.

If a cow is to be selected, let it be the best *new milch* cow that can be found. The milk of the cow which has not long since calved, seems to agree better with the stomach of the young child than any other. Milk should, in Summer at least, be brought from it twice a day, that it may be perfectly fresh. It is a matter of great moment to obtain the milk from the same animal constantly, and the precaution to secure this should therefore be taken. If one owns the cow, this is, of course, easy, but in a city or large town, where the milk has to be bought, it is not so readily accomplished. Honest milkmen can, however, usually be found who will furnish it, and the good of the child would repay one for any amount of labor in hunting such an one up.* The milk should be kept in a cool place, and, if possible, by itself. So many things will communicate their flavor to it, by being shut up in the same refrigerator with it for a few hours only, that this precaution is not to be neglected. The child is

* I knew of a woman in New York who made something more than her living by keeping a few cows to furnish milk for children exclusively.

The milk should be sweet. *Boiling it.*

offended by the flavor thus communicated to it, and it rejects its food on this account. Is it necessary to add that it should never be given to the child unless it is perfectly sweet? Neglect of this will at once be evident, in its effect upon the bowels. During the Summer, when it is most difficult to keep milk sweet, it should be boiled as soon as it arrives unless it has just been taken from the cow. The changes to which it is subject, are accelerated by the jostling of the long ride which it takes before it is served by the milkman, and these changes are, in a measure, checked by boiling. Of course it should not be allowed to burn, and requires only to be brought to the boiling point, not to be continued at it. For children that are constipated, boiled milk is not well adapted, as it serves to increase that difficulty, but the same peculiarity makes it more beneficial to those who have any tendency to diarrhœa.

I have said that cow's and goat's milk is not exactly like woman's milk. The difference will be more readily appreciated by a careful perusal of the following table, which I believe to be entirely accurate. It will be seen that the milk of each of the animals of which I have spoken is included.

Table showing the Properties of Different Kinds of Milk.

Properties.	Human.	Cow.	Goat.	Ass.
Casein (cheese),...	2.95	4.48	4.02	1.82
Butter,.....	5.20	3.13	3.32	0.11
Sugar,.....	6.34	4.77	5.28	6.08
Saline matters,....	0.45	0.60	0.58	0.34
Water,.....	85.06	87.02	86.80	91.65
	100.00	100.00	100.00	100.00

This shows that cow's milk has more cheese in it than woman's milk, with less butter and sugar. The same is true of goat's milk, though the proportion of cheese is not quite so great as in cow's milk. Ass's milk has less cheese, butter, and sugar, than woman's—that is, it is in every respect poorer. If this were used, it would be necessary to give the child a larger quantity at a time, or to add something to it to make it richer. The cheese (casein) in cow's milk is the ingredient which, on account of its difficulty of digestion and its excess, it is especially desirable to lessen; while it is equally necessary to increase the portion of fatty matter which, in the table, is called butter, and at the same time increase the proportion of sugar. The cream which rises on milk when it is allowed to stand in a

cool place, consists mainly of the fatty portions of the milk,—as every one knows who has seen the cream carefully skimmed off, that by churning the *butter* may be entirely separated.

In this there is a smaller proportion of cheese, less sugar, and less water. If now we wish to imitate the proportion of these ingredients as found in woman's milk, we take cream and add to it warm water, sufficient to make it about as thin as that—which is thinner than cow's milk,—and sugar sufficient to make it a little sweeter than cow's milk. The imitation may be thus, with care, made very exact, and every one who has ever had the charge of a child that depends on artificial feeding, knows that this is the mixture which is most apt to agree with the child that is new born, or whose stomach and bowels have become deranged. The reason of it is now clear.

As it is not often possible to feed a child entirely with cream, more of the milk is taken, but the directions given are always to take the *top* of the milk, that is to give an increased proportion of butter, and to diminish the quantity of cheese.

The milk should be prepared fresh every time it is wanted. The temperature should be raised by

adding warm water, instead of heating the milk and water after they are put together, and should be just that of milk that is fresh from the cow. Some care is necessary to adjust this, and sometimes a thermometer is necessary to ascertain the exact warmth. If little milk is used, the water should not be much warmer than the mixture is to be, but if little water is added it must be almost boiling.

As to the way of preparing the milk, it will be sufficient to say that at first, when cow's milk is used, it is well to mix one part, by measure, of the top of the milk, with two parts of water (that is, make it one-third milk), and sweeten it with refined sugar. It should not be made excessively sweet, but still should taste decidedly of the sugar. To a gill of milk and water, a teaspoonful of sugar will be quite enough, and frequently less will answer. When the sugar is in excess, the milk is very apt to turn sour on the stomach. If the bowels are constipated, brown sugar may be substituted for the white, but a very coarse sugar should not be used, as it sometimes produces colics. When the child is very delicate, the mixture before described, should be first used, that is, one part, by measure, of rich cream to ten of water, a teaspoonful of sugar being

added to every gill of the mixture. The proportion of cream can be increased, and milk gradually added as the child gains.

With the child's increase in age it will be necessary to increase both the quantity and the strength of its food. But as no precise rule can be given for the quantity children may be allowed to take, so no exact time can be set down for increasing its strength or richness. One child will eat about as much during the first month, as a more delicate one will in its sixth month, and these particulars must be left to the common sense of mothers. The addition of cream, as well as the increase of the proportion of milk renders the mixture richer.

When goat's milk is used, it should be reduced till it is of the same strength as that of which I have spoken above. Cow's milk furnishes the best standard, and to this it is easy to bring other milk. The table shows that the proportions of cheese and butter do not vary much from cow's milk, but the goat's is a little sweeter.

Several other substances are used occasionally, in preference to, or in place of milk. These are arrow-root, flour-gruel, cracker-water, or a sort of panada made of crackers, but all of these are, unless it be

in very exceptional cases, to be avoided. None of the substances, which in these various preparations are dissolved in or mixed with the water, are so easily digested by the infant as milk, and none of them contain so exactly the elements which it needs to make it thrive. Considering them as unfit for the child less than six months old, I shall not dwell upon them, but again advise mothers not to use them.

Having thus described the fittest food for the child that is not to be nursed by its mother, or some other woman, the question occurs, how is it to be given to the child. Herein is involved no slight task. The child is deprived of its natural method of feeding, and how shall a substitute be found for it.

Almost any apothecary's shop will furnish a great variety of contrivances, intended to take the place of the mother's breast and nipple, but in my opinion almost all of them are deficient in one or other respect. To enumerate them all would be impossible, as it is unnecessary, since it will suffice to show the general principles on which a selection should be made. Believing that we shall do the best when we imitate, as nearly as possible, the conditions under which the infant naturally obtains its food, I would lay down the rules following.

1. Whatever apparatus is selected, it should be one which will require the infant to suck in order to obtain the milk. This will cut off a very large number of contrivances, in which a short tube is placed in the mouth of a bottle. These compel the nurse to tip the bottle up, and the milk just runs into the child's mouth. To this my objection is, that it is important for the infant, as well as the adult, that its food should be mixed with the secretions (the saliva) of the mouth, which does not take place when it runs down the throat as fast as the child can swallow, without any exertion on its part. The milk, therefore, is not in its most favorable state for digestion. But beside this, the child is apt to have its stomach filled to a greater degree than is necessary, and this also tends to interfere with digestion, producing, not unfrequently, more or less severe diarrhœa. It is, perhaps, a less important consideration that, from the position in which the infant is usually placed, there is no little danger of its being strangled — I do not mean to death, but so as to produce annoying fits of coughing.

2. The apparatus should be easily kept sweet. It will be found that one of the greatest difficulties to be contended with in artificial feeding, is to keep

everything in which the milk is put, from becoming offensive. The temperature at which it is necessary to have the milk when the child feeds, hastens changes in it, and these are rapidly communicated to new milk, if the old is allowed to come in contact with it. This rule excludes all those arrangements of which a piece of sponge, or other soft substance, so placed as to require the milk to pass through it, composes a part. The sponge is, in itself, when new, sufficient to disgust an infant by the taste which it communicates to the milk. Whether this or other soft substances are used, it will be found to be impossible to keep them sweet, after they have been used more than a day or two, no matter how much trouble is taken to have them cleansed. More or less of the milk will be detained in their meshes, and either become sour, or give out that stale and rancid odor, which is more offensive. The same objection holds to those contrivances which do not allow the cork, which is to stop the bottle, to be readily changed. The cork becomes saturated with the milk, and to remove it and substitute another one for it, is too difficult a thing for most persons to do. This rule also requires the vessel which holds the milk, to be of such a form that it is easily cleansed.

3. The child should be able to obtain the milk with about the same effort, and about as rapidly as one does that is nursing. This rule is, perhaps, a corollary to the first, but it merits the enforcement of a separate place. The rapidity and quantity, can be judged of by the frequency with which the child swallows.

4. The material should be such that the tube or mouth-piece will not break in the child's mouth, or be liable to cut or injure its tongue and gums, if slightly injured. I have seen glass tubes which were very objectionable on this account. Any other material that could injure the child by corroding, or in any other way, should be excluded. Thus, copper would be unfit to use in making a tube. The prepared teats of the calf are objectionable, because it is necessary to keep them in alcohol, and although the teat is soaked in water before it is used, it cannot usually be done thoroughly enough to take out all the alcohol. In passing, I may say that I have never seen infants appear to like them. The india-rubber nipples and mouth-pieces do not seem to be liked any better, and they have been objected to on the ground that the sulphur which is mixed with the rubber irritates the bowels, tending to produce diar-

rhœa. I have never seen this effect, but should be watchful for fear they might injure a delicate child in this way.*

5. The position of the child while feeding, should be as nearly that of a child that nurses as is possible. This is a consideration for the child's comfort, and, I believe, greatly conduces to it.

The best arrangement which I have ever seen for this purpose, is a silver tube long enough to reach nearly to the bottom of the nurse bottle, with a mouth-piece of good size, surrounded with a shield, against which the lips press. It is secured in the bottle by a cork, through the middle of which it passes, but which can be readily changed for another, and thus perfect sweetness of this portion is easily and cheaply secured. It is prevented from passing through the cork by another shield, which is firmly secured to the tube. A smaller tube passes, by the side of the main tube, from this second shield downward a sufficient distance to pass through the cork. This is for the purpose of allowing air to enter the bottle as fast as milk is drawn from it, on precisely the same principle that a *vent hole* is made in a cask of vinegar, or other fluid, when it is to be drawn off.

* I have now seen this rubber nipple used for eight years since the above was written, and never with any bad result. — *2nd Edition.*

How to keep the apparatus sweet.

The advantages of this over other tubes are, that it is easily kept clean; that the child does not have the milk poured down its throat, so that it has to swallow as fast as it can to avoid being strangled, and yet does not have to draw so hard as to be exhausted by fatigue, before it has got enough to eat; that the position of the child in its nurse's arms is very nearly the natural one, disposing it comfortably to sleep, and permitting it to enjoy the exquisite luxury of falling asleep as it feeds, without danger of being overflowed by the milk; that it is, in short as near an approach to the natural arrangement as is possible.

I do not know whose invention this is, but that is unimportant; neither do I speak of its merits from theory alone. I have repeatedly seen it used with the most complete satisfaction, which is more than I can say of any other apparatus.

Still this requires a good deal of attention, though less than others. The bottle should be thoroughly washed out with warm water after every meal, whether it be in the day or night. Once or twice in the twenty-four hours, it should be allowed to stand for some time, filled with water containing a half teaspoonful of carbonate of soda, or as much saleratus. When the cork has the least

sour or tainted smell, it should be removed, and a fresh one substituted for it. Allowing it to soak for a day or two in soda or saleratus water, will make it sweet again. Three or four should thus be kept on hand, fitted to the bottle, and with holes for the tube to pass through. Water should be drawn into the tube, after every time that it is used, sufficient to wash it out thoroughly. This, also, should be put in soda water every day for an hour or two. If it becomes clogged, an exceedingly fine knitting-needle, or a piece of wire should be used to force out the obstruction. The same precautions will be necessary for any other tube and bottle that may be used, in order to keep them sweet.

The question may arise, whether or not some other method of feeding will not answer as well. Other methods are resorted to, such as feeding with the spoon, or from a cup. By either of these, the first and third rules are violated, and the child suffers in consequence. Although robust children will get along in this way, it almost always disagrees with those who have not so vigorous digestive powers. I do not know that it is necessary to say more of them.

Chapter VI.

OF THE SECOND SIX MONTHS.

What has hitherto been said, refers more especially to the period embraced by the first six months after birth. To some of the principles which have been laid down, I shall have occasion to refer again, but others are chiefly important within the period thus limited. This limitation is not a mere arbitrary division, but one which seems to be pointed out by nature. It rarely happens that the teeth of infants begin to appear before the seventh month, though they occasionally do,* but during that month, one or more almost always show themselves above the

* I had, about six years ago, a singular instance of early dentition. At the time the child was born I noticed nothing peculiar in its appearance, except that it had a very large amount of thick black hair on its head. On visiting the mother the next day but one, she showed me two teeth which had come through, and which must have been raised above the level of the jaw at the time of the birth. They were the middle teeth of the lower jaw, and were never of any use. I saw them in the child's mouth nine months after its birth, but then lost sight of the family.

gums. From the fact that, during this period, children are particularly liable to disease, it seems well to mark it by a separate division.

Mothers always want to know at what time to expect teeth to appear, and for this reason I give the following statement—premising it, however, by saying that healthy children may have them appear either sooner or later than is here set down; so that the fact that certain teeth have not appeared at a certain time, is no proof, in itself, that the child is not healthy.

The four front teeth, two in the middle of each jaw, usually appear about the seventh month, but sometimes earlier, and frequently later. Ordinarily, those in the lower jaw come through first.

The teeth on each side of these appear next, and between the seventh and tenth months; the usual order being for the two in the lower jaw to come first.

Soon after the end of the twelfth month, the first grinding teeth come through, a space being left between each of them and those which have before appeared. There are four of these, two in each jaw.

Between the fourteenth and twentieth months the spaces left in the jaws are filled by the canine teeth,

of which there are also four in all. The two in the lower jaw are usually called stomach teeth, those in the upper jaw being known as eye teeth, though they have no particular connection either with the eyes or stomach.

Another grinding tooth appears beyond each of those already seen, at some time between the eighteenth and thirty-sixth month, and these complete the first set, or milk teeth, as they are called.

Except for the four front teeth in each jaw, which usually appear first in the lower jaw, there is no regularity as to those in the one or the other appearing first. As a general rule, when those in one jaw are coming through, the corresponding teeth in the other are not much behind. And so it is with the corresponding teeth on opposite sides of the same jaw.

Perhaps it may simplify the description to put the succession of teeth in a tabular form, thus:

Table showing the time at which the teeth of the first set (milk teeth) may be expected to appear.

Two front, in each jaw (incisors), appear about the seventh month,—lower teeth first.

One tooth next each of the preceding, two in each jaw (lateral incisors), from the seventh to the tenth month,—lower teeth first.

First grinding teeth (anterior molars), about the close of the twelfth month,—irregular in their order.

Stomach and eye teeth (canines), from the fourteenth to the twentieth month,—irregular in their order.

Back teeth (posterior molars), from the eighteenth to the thirty-sixth month,—irregular in their order.

A healthy child that is nursing, does not usually give much indication of disturbance during the time in which the teeth are appearing, except by an excessive flow of saliva, or as it is commonly called drooling. Perhaps it will have two discharges from its bowels, in the twenty-four hours, instead of one, and it may, occasionally, be a little feverish or restless, desiring to bite the nurse's fingers, or whatever else is smooth and sufficiently hard. If the gums are examined at this time, it will be found that the ridge, which has previously been visible along the edge of the jaw, has entirely disappeared, and the gum is full and rounded. After a few days, the point of a tooth makes its way through the membrane which has covered it, and the remainder of its crown soon appears. The slight disturbance which has previously existed then disappears, and returns only when another tooth is about to come through.

Various disturbances. *Severe pain.* *Its effects.*

When the process of teething goes on in this manner, we have the natural and most desirable condition. But this, unfortunately, does not always prove to be so favorable. A diarrhœa comes on, or there are twitchings and startings during sleep—the child sometimes awaking in terror; or convulsions occur, and show to what a degree the nervous system of the child is disturbed by the process.

But I will treat of the ordinary disturbances in the order of their severity.

When the child has been, and still remains perfectly well, there will sometimes be excessive pain produced simply by the pressure of the tooth on the gum. This not only keeps the child from sleeping, but from obtaining a moment's rest. The pain is constant and severe, and if the child's mouth is examined there will be found to be a prominent place in the gum, as if a tooth were simply covered by a strong membrane, like that which lines the rest of the mouth. And this is the actual condition of things. If this is allowed to go on without being interfered with, the child will suffer extremely, and if he continues perfectly well the tooth will finally penetrate the gum, and relief will follow. But not unfrequently, by the exhaustion and irritation which

are thus produced, the nervous system of the child becomes deranged, and convulsions follow. Now, to avoid all of these evils, physicians desire to hasten the very process which nature is slowly accomplishing; that is, by means of a kind of knife, called a gum lancet, they divide the gum so as to let the tooth through. Nothing can be simpler than this, or more strictly in accordance with the natural process, and yet I do not know of an operation that is more frequently objected to. When the gum is in the condition which I have described, there cannot possibly be any harm resulting from its division, provided it is properly done. A cross cut (like this, ×) should be made directly on the top of the tooth, and down to it. No blood vessel can in this way be divided, and so there can be no danger of bleeding. and the not uncommon belief, that it is injurious to the child, can have no foundation. When lancing the gums has been injurious, it has almost always been from its being done when unnecessary, or from the operator's having cut in the wrong place. Although I have had occasion to do this many hundreds of times, I have never yet seen any bad effects follow, and sometimes the relief is very striking. When a medical student, I found one of my little

nephews — a fine, stout boy — crying as if in the greatest agony, and his mother said that he had continued to do so for several hours. Upon looking into his mouth, I saw a large tooth in the condition which I have before described, the gum being drawn tightly over it. Not having a gum lancet with me, I ventured to divide the membrane with my penknife, carefully covering its point, so that it should not wound his tongue. The child was crying when I began, but actually laughed as soon as the gum was divided, and before I could get the knife-blade out of his mouth. So, too, I have seen children, who seemed to be in a high fever, become at once naturally cool and playful after dividing the gum. For these reasons, I would urge mothers to be careful that a judicious physician should be called upon to look at the gums of a child that becomes restless and fretful at the period of teething, and if he thinks they should be cut, he should be allowed to do it. It may, perhaps, be best to add, that if there is much bleeding from the gums after cutting them, it can usually be stopped by taking a clean and soft linen towel, and pressing it with the finger firmly against the gum. If this does not stop it, a little powdered alum may be put on the finger and pressed

against it, or, what is better, if an apothecary is near, a little *tannin* may be got and used in the same way. In the country, when neither of these are at hand, a strong tea may be made with white oak bark, or even with hemlock bark, and a soft piece of linen saturated with it can be firmly pressed against the gum. If the bleeding does not stop soon, the physician should be again sent for; but I repeat, that where the operation is required, and is properly performed, more than slight bleeding very rarely, if ever, occurs, and this is the only danger that is to be apprehended.

During the time in which teeth are pressing, care should be taken that the child's bowels should be open — that is, that there should be at least one full movement from them every day. Two, even, may be allowed to occur, but when there are habitually more than this, and more especially when these are very loose, watery, and offensive, the child should be carefully attended to. It is not necessary to attempt to explain the mode, it is sufficient to state the fact, that in consequence of the pressure of the teeth against the gums before they penetrate them, there arises a relaxed condition of the bowels. Now, many physicians will say that this is beneficial and that to stop the child's diarrhœa will endanger

its life. This, I do not hesitate to say, is erroneous, and appears to be one of those sayings, or customs, handed down from one to another, and repeated in books without due thought upon the subject. A constipated condition of the bowels is to be avoided, but there is no more reason for allowing the opposite condition to exist. With constipation, the danger is that feverishness will be constant, and that a condition will arise that will produce convulsions. But with a continuous diarrhœa, there is danger of the child's being prostrated, and that just at the time at which he should be increasing in strength and in flesh. Convulsions frequently supervene upon a protracted diarrhœa; and in many parts of our country, if the Summer comes round while the child is allowed to remain in this condition, cholera infantum suddenly seizes upon the little one and makes him its victim.

I dwell upon this point the more, because I know it is, as I have said, the very common opinion that a diarrhœa, at this period, not only does no harm, but really does much good, and I am sure that many lives are lost every year in consequence of this belief. During the month of August, 1856, I saw at the Demilt Dispensary, and prescribed for, nearly

two hundred children, the great majority of whom were suffering from diarrhœas. Of those which were teething, the majority had been allowed to grow weaker and weaker from the repeated discharges, because of this very common opinion, and several had arrived at that low state which is beyond the reach of medicine. In the others, free division of the gum where teeth were pressing, and the use of appropriate remedies, more or less quickly checked it, and brought back the child to that condition from which it would never have been allowed to depart, but for this common and erroneous belief. This opinion prevails not only among the classes who seek relief at our public institutions, but among those who are more intelligent.

At other times, the effects of the growth of the teeth are manifested, not on the bowels alone, but (either with or without diarrhœa) upon the nervous system, and we have restlessness, contractions of the muscles about the mouth — that is, involuntary twitchings — starting during sleep, and sometimes even a crying out, as if from fear. When these conditions arise, and continue, there is more or less danger of convulsions occurring, and it is therefore the safest way to consult a physician concerning

them. In this case it is usually necessary to divide the gum and to give some internal remedies, according to the condition of the bowels, for I have said it may be accompanied either by diarrhœa or constipation.

If the child, instead of nursing, is fed from a bottle, there is much more danger of derangement of the bowels, and consequent derangement of the nervous system; so that such an one requires much more careful watching, and regulation of its diet.

For convenience, this synopsis of what has been said on this subject may be useful:—

1. If the child is nursing, and seems to be perfectly well, no interference is necessary. It will sometimes be grateful to it to rub its gums with the finger.

2. If the child has long turns of crying, or does not seem to be well, its gums should be examined, and if a tooth is pressing, the gum over it may need to be cut freely.

3. When diarrhœa occurs it should be checked, so that there are not more than two or three discharges a day, and these natural, not watery. The gums should also be cut, if necessary.

4. If there are twitchings about the face, or

violent startings during sleep, the gums should be examined, and, if necessary, cut. A warm bath may be given to the child just before it goes to bed, and if this fails, the physician had better see the child.

Of the Dress of the Child from the sixth to the twelfth month.

The same general principles which have previously been given upon this point, must continue to guide the mother ; that is, the dress should be such as not to interfere with the growth of the child, by being too tight, or to injure it by being either too warm or too cool. In general I may add, that it is usually during this period that children learn to creep, and sometimes to walk. For this reason, it is desirable to shorten their dresses, if they have previously been long, so that their feet are, when the legs are straight, just below the hems of the dress and petticoats. If this is done, it will be necessary to add coverings for the feet, which will, of course, be much more exposed to the cold. Soft stockings of cotton, or woollen, according to the season and climate, and light shoes, should be put on. Neither of these should be tight, for the constant compression of the feet would interfere with their nutrition

and growth. India-rubber bands are sometimes used for garters to hold up their stockings. These are not unfrequently injurious, by encircling the leg so closely as to compress the veins and arteries, and thus interfering with the supply of blood to, and nutrition of, the parts below. Night caps are at this time, as in fact, during the whole period of early childhood, not only unnecessary, but injurious.

When the dress is shortened, especial care must be taken that the feet are kept covered when the child goes out of doors. It is sometimes well to leave the cloak long, for a time, after the dresses are cut off.

Of the Diet, Exercise, and Habits of the Child during the Second Six Months.

Under the most desirable circumstances, the child continues to be nursed during the whole of this period ; and when this is the case, the same precautions and rules should be observed as during the first six months. Not unfrequently, however, the mother finds that she cannot, for some reason, continue to nurse her child, and she should then endeavor to find a suitable wet nurse for it. Whether she resorts to this help, or to artificial

feeding, her guide must be the principles before stated. If her supply of milk continues, though not sufficient to support the child, she may combine the two methods—nursing it to the extent of her ability, and feeding it as little as will make up her defi ciency. When this happens to be the case, it is well for the mother to continue to nurse the child, although she can supply to it but one or two meals a day. Much more should she take this course, if Summer is approaching, for it is often of the greatest importance, when a child is attacked by diarrhœa, that its mother should be able to nurse it. Its chance for life is tenfold greater, than if it were entirely weaned.

The general hygienic treatment of the child should be regulated as I have advised for the first six months. Its bathing,—its exercise—or rather excursions into the open air,—its sleeping, all should be carefully attended to. Perhaps one direction may be added, concerning its going out doors. As the child grows heavier, a little wagon is usually resorted to, to relieve the nurse. Now, if the weather is at all cool, there is great danger that the child will suffer from cold. This I frequently see in the children whom I meet in the streets taking

excursions in this way, and the cause of it is simple. The nurse, by walking, keeps up an active circulation of her blood, and a good degree of warmth while the child, more sensitive to cold, and becoming quickly chilled, sits entirely inactive, and in just those circumstances which tend to make its blood circulate slowly. If the nurse stops to talk, as nurses will do, the child is not more exposed—perhaps not so much, for she sooner appreciates the coldness of the air than when she continues to walk—but we can more clearly appreciate the danger there is of its being chilled. It is better, in all but quite warm weather, to have the nurse carry the child, so that it may be warmed by the heat of her body, unless she be very faithful and attentive, so as to notice whether or not it is too cold.

In the house, it is very desirable that the child should not be held in the lap all the time. In fact, it should be taught, during its first two months, to lie upon a bed, or some other soft place, and amuse itself. It is better for the mother and nurse, who in this way are able to rest, and it is better for the child, because it learns to throw its hands about, to kick its legs out, and thus to obtain just the exercise which it needs for encouraging the growth of the

limbs. After it is six months old, it will do to accustom it gradually to lying on the floor (unless there are cold currents of air blowing across it), for in this way, with its play-things about it, it will learn first to roll, and then to creep after them. With the increase of exercise and development, there will follow efforts to walk. None of these modes of progression need be taught to the child, usually, for he finds them out as early as is good for him.

During this period, the child should be treated with firm gentleness, not with excessive indulgence and subsequent severity,—but should, even thus early, learn that the parent is to rule. It is not to be expected to obey orders, but there are many little things which a child will do, if it has its own way, which will annoy its attendant excessively, if allowed, and which can usually be prevented without much difficulty. The most common habit of this kind, which will serve as an illustration of the whole, is that of making a great disturbance, if it is not at once given every thing that it desires. A child will want every bright thing which strikes its eye, and if, at first, always allowed to have it, sooner or later the time will come when it must be denied.

Then screams, struggles, and persisting efforts to obtain it will follow. If the mother gives up to the child ever so little, the young tyrant will try the same measures the next time, till finally he will become a nuisance to every body near him from this single fact. Now, there is no necessity of whipping the child. If proper care is taken to teach him, at first, that *no*, though said gently and with smiles, means that it really cannot be indulged, there is rarely any subsequent difficulty. But if this has not been taught, and the child will not be pacified, it is best to put him down on the floor, or in his bed, and let him cry till he stops. Doing this once or twice will make him realize that it is of no use to try to rule, and he will become submissive. He is not sick, and there is no danger of his crying himself into convulsions. He ought not, however, to be left alone in the room at this time, for this may frighten him so that he cries from fear, not disappointment. When taken up after getting quiet, there should be no trace of anger or reproof remaining on the part of the parent, but more than usual efforts should be made to amuse him, though with a careful avoidance of the vicinity of the coveted object, which has been the cause of his discipline. It is

surprising, to an inexperienced person, how much a very young child learns in this way, and how soon, if care is not taken, these little folks rule their parents. It is said, I know not how correctly, that American parents are more faulty in this respect than those of Europe. Certainly there is enough among us to be corrected.

It will not be amiss to say here, that towards the latter part of this period, the attempt may be made to give the child the habit of sitting upon a chair with a vessel beneath, when it is to have a discharge from its bowels, instead of using its diapers. It cannot always be accomplished at this early age, but if the child has learned to sit alone, it usually can. This is the mode. The mother should notice at what time the child's bowels usually move—it being the case almost always that they are pretty constant to a certain time. Anticipating, then, the discharge by a few minutes, by sitting the child on its close stool, in an easy position, it will occur then. A few days will, by the repetition of the occurrence, give the child the idea intended to be conveyed, and after that time when it feels the necessity for it, it will ask for the chair. So great an increase of comfort is, in this way, afforded to the child and the

attendants, that success well repays considerable effort.

It may, in the same way, be taught to ask for the chair when it desires to pass its water; but this is more difficult because the discharge comes with more irregularity.

Chapter VII.

THE SECOND YEAR.

During the second year teeth still continue to appear, as has previously been shown by the table on pp. 81, 82. In fact, in the majority of cases, but four teeth have previously appeared in each jaw, and those are the front teeth. With the commencement of the second year, the first grinding teeth are expected to begin to press, not next to, but a little distance from, the teeth which have before cut their way through. Their order of coming and progress is irregular. Between the fourteenth and twen tieth months, the spaces left between the front teeth and the grinders will begin to be filled up, by the stomach and eye teeth pushing their way through. It thus happens that the same number of teeth are to be expected to come above the gum during the

second year, as the first; but they are larger, make their way more slowly, and are attended with more disturbance of the system than are the front teeth. From this and other causes, it happens that the second year is a period of great peril to children, and demands from the parent renewed watchfulness and care.

The general rules given in chapter sixth, for the guidance of the mother during the teething of the child, contain all that needs to be said upon the subject, and therefore I need not repeat them. The mother should fix them in her memory, and govern herself by them.

Of Weaning.

By the filling of the jaw with teeth, nature seems to intimate that the child is now prepared for a more solid diet than that which it has hitherto had. The change from milk to solid food, is called weaning, and is a very grave matter.

The time at which, and the mode in which the child is to be weaned, depends upon circumstances. Of these, the season of the year is one of the most important. A child that may properly be put upon solid diet in October, could not be so in June, without running the greatest risk of dying, or at least of

being dangerously sick in July and August. The causes are easily discovered.

The change from milk to solid food, is apt to make the bowels move more frequently, just as a grown person who changes his diet from substances like the finest wheat bread to coarse meal or rye, is apt to have a looser state of the bowels in consequence. The heat of Summer seems also to exert an influence which we cannot explain, but the result of which we know to be, that the bowels are more open. I have before alluded to the fact, that the pressure of the teeth against the gums as they are making their way through, often has the same effect. Now when all three of these influences (change of diet, warm weather and teething) are combined, it is rarely the case that the child escapes having a severe diarrhœa, and this is not only to be avoided on its own account, but also because it reduces the child to that condition in which it may be attacked by *cholera infantum*, one of the gravest diseases of early life. It is because these influences are then combined, that nurses have learned to dread for a child its *second Summer*, and not because there is in that period itself anything dangerous. If a child is born in September, it will probably be cutting its

front teeth during the *first* Summer, while it may have got all the rest before July of its *second* Summer. Under such circumstances, it is the first Summer that is the more critical period; but from the fact that the child is then nursing, and that the teeth which are coming through are those which give the least trouble, the first of the three causes of irritation, which I have before enumerated, does not exist, while the last is much less potent. But a child that is fed on cow's milk will often suffer excessively from this combination during its first Summer. The knowledge of these facts often removes a load of anxiety from the hearts of mothers whose children are approaching their second warm season.

Rules Concerning Weaning.

If the child is thriving, gaining rapidly in strength, and contented with the breast-milk, it will be well to allow him to continue to nurse through his second Summer, even though this completes his second year. This presupposes that the mother is able to furnish to the child an abundance of milk without herself being reduced. All of these conditions are rarely found combined; very few

mothers being able to nurse their children entirely after they are nine months old. This period has in fact been recommended, by some writers, as the proper time to wean the child, but I am sure it is often too soon. Usually the child, if vigorous and hearty, has learned to eat solid food, as bread, before this time, and is by no means contented with less substantial diet. When this is the case, he may be indulged in some of those articles which will be mentioned as fitted for weaned children. The selection of one or another must be guided by his condition, under some circumstances that being improper which, at other times, would be the most beneficial.

When the child has shown any tendency to diarrhœa, is delicate and puny, it should not be weaned till after its second Summer. The reason is, obviously, that it is not fitted to bear the exposure to diarrhœa which it must incur, and this point does not require to be dwelt upon.

When the mother furnishes but a scanty, or at any rate an insufficient supply of milk for the child, which may be known by the constant hunger of the child and the inability of the mother to satisfy him, he may, if all his teeth are through — eight in each

jaw — be either entirely or partly weaned, though Summer is approaching. If his teeth are not all through, he should be partly weaned, unless cool weather is approaching. By partial weaning, I mean that he is fed in part, and nursed in part. Thus, he may be allowed to nurse two or three times in the twenty-four hours, his other meals being of more or less solid food and milk. The reason for giving this advice, is a simple one. By this method, if the heat of Summer produces a diarrhœa, the child can be at once confined to the breast-milk, and his chances of recovery are much greater, while the same course can be taken if the teeth, or change in diet, produce a similar derangement.

When the mother's milk disagrees with the child, as it sometimes will, there of course remains no choice, except between weaning and providing a wet nurse. Which course shall be taken depends upon the age of the child and the season of the year.

Whatever may be the season, unless the mother is unable to do so, or the milk is hurtful to the infant, it is better to make the change from nursing to feeding, a gradual, rather than a sudden one. This is better for both the mother and child. It should be accustomed to nurse for a shorter time, as well as at

longer intervals, and the number of times being reduced to one, it may be entirely discontinued. If there is any trouble in making the child give up nursing, a little finely powdered Peruvian bark or myrrh, dusted on the nipple before nursing, will give him a disgust to it that will not permit him to take it again.

When nursing reduces the mother to such a degree as to endanger her life, there can be no doubt that she is justified in weaning her infant, even if she cannot get a wet nurse. In some parts of the country, a disease popularly known as nursing sore mouth, often compels the physician to advise this course.

There are two conditions in which the mother is often at a loss to know whether or not she should continue to nurse her child. The first is when the menses return—that is when the monthly turns reäppear. When this is the case, the mother should notice whether or not, at that period, there is any tendency to colic or diarrhœa in the child, and if so, nurse it a little less frequently, or partly feed it for a day or two. But generally there is no disturbance of the child's digestion produced by the milk, and it continues to thrive. A recent French

writer states that his observation leads him to believe that the menses reäppear between the fifth and seventh months, in one-third of all who nurse. This cause does not interfere with nursing.

The other condition to which I alluded is pregnancy. When the mother finds herself in this condition, it is usually necessary for her to wean her child. She feels the exhaustion, if nursing, and cannot put herself in the most favorable condition for the healthy growth of the child in her womb. Still some mothers will go on nursing to the end of the sixth month of their pregnancy, without any inconvenience. The mother's milk is usually altered in its ingredients by this event, and does not agree with the child. When this is the case, it must be weaned. My usual course is to advise the mother to wean her child, even if the milk agrees with it, unless hot weather is just at hand, so that there is not sufficient time—say two months—to accustom the child to its new food before that comes; or, unless it is probable that during the hot weather it will be cutting several teeth. In that case a partial weaning may take place, and if the new diet proves injurious, or if, from any cause, diarrhœa occurs, the child can then be kept on the breast milk entirely.

Unless it should be absolutely necessary, from the disappearance of the mother's milk, or from its producing diarrhœa and colics, weaning during the hot weather of July and August should not be attempted. It would be better to obtain a wet nurse for these months only, than to endanger the life of the child by an abrupt and entire change of diet.

Manner of Weaning.

Ordinarily about the commencement of the second year, the infant is allowed to eat a little bread or cracker, and when no green discharges from the bowels or colicky pains intimate that it is injurious, the practice can be continued. As the child grows older, the boundaries of its diet may be gradually increased, care being taken to observe its effects. Any article found to be indigestible or digested with difficulty, should be at once discarded, whatever may be the previous notions concerning its good effects. It is true of children, as of adults, that, as the proverb has it, "What is one man's meat is another man's poison," and to compel one to eat a certain article of food because it agreed with another, is only to run the risk of making it sick. Herein consists the great art of feeding children,

and it is with reference to this fact that my remarks on diet are made.

The articles of diet to which the child may be gradually accustomed by the close of the second year, are, (beside milk), bread, potatoes, both white and sweet varieties; butter, which must be entirely sweet and not very salt; rice, soft boiled eggs, if entirely fresh, or the yolks of eggs boiled till they are rather hard; simple broths, and plain roasted or boiled meats. Oysters are more easily digested than meats, but all children do not like them,—yet when relished they are very acceptable. It should be remembered, however, that they have some tendency to open the bowels, and their effects in this respect should be noted, as indeed should be done with all new articles of food. Boiled meats are not so good for them as roasted,—the former containing much less of the nutrient materials than the latter, or at least, in a less desirable condition. Broiled meats are also good, but fried are to be avoided. Fish is to be shunned, as are salted meats. Baked potatoes seem to be much better for children than boiled, and sweet—or as they are sometimes called, Carolina potatoes—are more readily digested than the common white potato. In fact, I frequently

order the former after a diarrhœa, having found it useful, and I learn that it is used in the same way in the Southern States. Whichever is used, it should be thoroughly baked or roasted, the skin taken off, and a little milk, cream, or butter may be put on it after it is mashed. Meats should not be done very hard. They should be thoroughly cooked, but not excessively so. A beefsteak that is still red in the inside when cut, has far more nourishment in it than one that is brown throughout.

At first the child should be allowed to suck the meat only, so as to obtain the juices, but as the experiment proves successful, it may be allowed what it will try to get, namely, the meat itself. This should be cut very fine, and given to it in small pieces, and not entirely alone. It should be accompanied with bread, or potato, or rice, or some other starchy food.

Children do not like to be constantly kept on just the same routine of diet any better than adults. Their meals should be varied, so that breakfast shall be different from dinner, and lunch from supper, and the routine of different days should vary. Milk is the only article that does not seem to pall upon the appetite, though I have known one of my own chil-

dren to eat fried rice every morning for a year, and then be disappointed because it did not appear.

It will be observed, that I have not included fruits in this diet table. They are almost universally injurious previous to the close of this year, and should be avoided. In Winter, when there is much constipation, a little baked sweet apple, or stewed prunes, may be cautiously given to remove this condition, but this needs to be done cautiously. Strawberries, blackberries, raspberries, in fact, all kinds of berries are objectionable on account of the seeds they contain, or the skin that envelopes them; while the larger and more solid fruits are equally bad, unless they are cooked, and even then they must be used cautiously.

For drink, the child may have milk, or a mixture of milk and water, and sugar. Tea and coffee are injurious. Cold water should be given in moderation, and it is better to sweeten it sometimes, particularly in Summer, using of course refined sugar. This *eau sucrée* does not seem to have so unpleasant an effect in hot weather as simple water, and is usually very much liked.

Children must be at once taught that they will not get that which is eaten by others, even if they do

cry for it. From neglect of this rule, they are often exposed to great danger, if not in fact killed. At the Demilt Dispensary, my constant question to mothers, who bring in children with diarrhœas, is, "What do you feed the child with?" and the common answer is, "O! pretty much everything that is going." Meats salt and fresh, especially the former, half boiled potatoes, fruit, cabbage even, with tea and coffee for drink, not uncommonly make up their diet before they are two years old, and they are sure to be "uncommon fond" of just that thing that is worst for them. I know these patients are from the lower classes, but I could give instances of similar errors in intelligent families. The fact is, these little children soon learn that if they want a thing they have only to reach out their hands and cry, to get it, and they will cry for everything they see,—while they as quickly learn that it is of no use crying, and are therefore perfectly contented when denied what they ask for. It cannot be too often repeated, in this respect, as well as all others, that the mother must rule her child, or the child will rule her, and children are the most inexorable tyrants.

The Dress.

The dress must be regulated by the season, the climate, and the vigor of the child. Common sense, not fashion, should rule here. Insufficient clothing exposes the child to contract colds and diarrhœas, while excessive clothing is also to be shunned. As I have before said, no exact dress can be described which shall be adapted to all the varieties of climate found between Maine and Louisiana, for those who live in houses warmed throughout, and those who live where only one or two rooms are warmed. But the rule to dress the child so that it is comfortable, and meet every change, as in going out of doors, with a corresponding increase of clothing, surely can be borne in mind, and will be useful.

Children have a much larger proportional surface exposed to the air, than do adults, and for this reason they do not so well bear exposure to cold. How great, then, is the cruelty as well as folly of sending them out of doors in Winter with garments, however richly wrought, that leave half their arms exposed—that come up only to their collar bones, and scarcely down to their knees. The children of the rich are apt to suffer in this way rather than

those of the poor. I have frequently seen a mother wrapped in silks and shawls and furs, leading her child dressed at an enormous expense, but so exposed as to be almost purple with cold. Bronchitis is the very frequent result of this practice, and when repeated, consumption may follow. During cold weather let the overcoat come up close in the neck, and be aided by a fur or other warm tippet. Let the sleeves be sufficiently long to come to the wrist, close enough to keep out the cold, and let additional coverings be put on the legs.

Children should be dressed warmer when they are to ride out than when they are to walk. The exercise of walking keeps their blood in more active circulation, so that they do not as readily become cold. When sudden and great changes in the temperature of the air occur, the dress of children should be at once arranged so as to meet it, unless in a room with a fire in it, which of course lessens the change, in fact counteracts it. But many of these changes occur during the Summer, and should be carefully noted, and pains taken to ward off their effects. A little care will save weeks of sickness, and give the child a vigorous instead of a feeble constitution.

The Bed.—Ventilation of the Sleeping Room.

The bed of the child should continue to be soft enough not to trouble it by its hard pressure, and so hard that it will not sink into, and thus become too warm. A thin feather bed is desirable during cool weather, and during the warm a mattrass covered with a quilt or some other slightly soft material. The coverings should be light, but varied as to degree, according to the climate and season. In the hottest weather a sheet is all that is borne, but during cold weather blankets and other warm coverings should be added, so as to keep the child warm, but not so as to throw it constantly into a profuse perspiration. These require to be tucked in pretty carefully to prevent the child from kicking them off, and thus exposing itself to be chilled.

The ventilation of the sleeping apartment should be carefully attended to, and it should not only be aired during the day, but at night there should be a provision made for fresh air. The smaller the bedroom, the more imperative is this. During the whole year, except the Winter, the windows should be let down at the top to a greater or less distance, and during the hottest weather they may be wide

open, unless it be in those districts of our Southern States in which the night air is so loaded with malaria as to be injurious on that account. The good effect of this ventilation can often be seen when a child is restless in his sleep, tossing from side to side, without there being any evidence of his being ill. Opening the window will frequently at such times soothe the child, and his rest will become tranquil and refreshing. Adults are sensitive to such influences, but not to the extent that children are. Pure air, by day and by night, should be as carefully provided for them as food. From want of it, ill health results in many cases.

When a fire is kept in the sleeping room during the night, it becomes still more important to provide carefully for a renewal of pure air. The fire has an effect upon the air similar to that which is produced by persons breathing it, so that a given quantity of it becomes much more quickly unfit for use. Unless then, a full supply of fresh air is provided, all who occupy the room will be subject to these injurious influences, and children feel them first. The disturbed sleep, restless tossing, and mutterings, give evidence of the effect of bad air, which is confirmed by the sunken eyes, dull headache, and unrefreshed feeling, which remains in the morning.

It is necessary that the child's bed should be so situated that it is sheltered from currents of air from the open doors or windows, but aside from this, no additional precautions are necessary. The habit of opening the windows, commenced during warm weather, can be continued till cold weather comes. If the child lies quietly, not throwing the clothing off during his sleep, it is of little consequence how cool the air of the room is, provided he is sufficiently covered to be warm. If sufficient care is taken that fresh air is supplied in abundance,— not after having passed over the red hot iron of a furnace, but directly from out of doors,— much less injury results from sleeping in warm rooms, though there is, I think, not quite that degree of invigoration which is felt when the room is cool.

Of Education.

It is not well at this age to stimulate too much the faculties of the child in any way. A professional friend is accustomed to say, that till a child is three years old, the more it is treated like a cabbage that is growing the better. This vegetable has somehow come to be used as an emblem of dulness, and his meaning is, that it is better, before that period,

to be chiefly intent upon strengthening the frame, rather than stimulating the mind. It is very pleasant to see children bright and learning rapidly, but this is too often accompanied with a state of the nervous system that is anything but desirable. Till the close of the second year at least, no especial pains should be taken to teach the child rapidly, either to walk or talk. The first children in a family are most apt to be injured by this course, their parents being anxious to witness their progress, and impatient of having their child, which to them is a prodigy, backward in learning. It is urged to talk, and as it progresses in its command of language, its mind is kept constantly excited by stories, by pictures, and by learning to read, together with all the little accomplishments which are so charming in children. Yet I never can look upon these very forward ones without a sigh, when I think of the increased perils which they incur on this account. Their over excitement of the nervous system tells upon the rest of the body, and increases the risk of convulsions, or of water on the brain. Neither should parents absolutely refrain from teaching them anything. They will soon enough try to imitate words and sentences, and while this imitation may

be gently encouraged, it should not be stimulated. Let the parents rather check the eager curiosity of the child to learn, especially if he be at all precocious, than urge it on; and turn their attention to giving him a sound body, well assured that the subsequent mental training will be more useful, more desirable, and more complete.

Of Creeping and Walking.

The objection to teaching a child to walk too soon, is that there is some danger of deformity resulting. A child that creeps, soon learns, when strong enough, to raise himself on his knees and feet, and can then be aided in learning the art of walking. Sometimes, however, nurses hold their children too constantly, for fear they will soil their frocks. They should be allowed to roll round on the floor, that they may learn to creep; they should be allowed to creep that they may learn to walk, and thus their muscular strength anticipates the efforts which call for its use. In the care of children, it is in general a wise maxim to follow nature, and not to attempt to lead her.

Chapter VIII.

FROM THE SECOND TO THE SIXTH YEAR.

The last period of early life of which I propose to treat is from the second year to the sixth, this being the time at which the peculiar dangers of infancy and early childhood are passed, and the mother has by this time become familiar with the best mode of taking care of her child.

Of the Teeth.

It will be remembered that it was stated that the back teeth (posterior molars) of the first set, one on each side of each jaw, may make their appearance at any time from the eighteenth to the thirty-sixth month. It is rare that they come before the close of the second year. Their order is irregular, as well as the time. When they appear very

early, they add to the general disturbance produced by the growth of the stomach and eye teeth, and increase the dangers of this period. When they appear later, they do not usually produce much disturbance. The child has at that time learned to express his sensations by language, instead of signs difficult of interpretation, so that the pain in his mouth, if there be any, leads him to desire his mother to look at the place. Such requests should not be neglected, and if the gum is found to be raised by the tooth pressing beneath, it should be freely divided, as has been before directed. One who remembers the annoying irritation produced by the sharp corners of the wisdom teeth before they have come through, and the relief that cutting the gum gives, cannot wonder that children suffer exceedingly from the same cause, or hesitate to relieve them.

Great care should be taken of the teeth to keep them free from the accumulations which sometimes form upon them and hasten their destruction. From neglect of such precautions, the front teeth begin to decay before the back teeth are fairly through, and the first set of teeth are all gone a year or two before the second set begin to come. I have seen them destroyed much earlier. In one case the front

teeth had gone before the stomach and eye teeth came through. The necessity of having food well chewed before it is swallowed, should prevent our neglecting any mode of keeping the first teeth from destruction till their substitutes are ready to take their place. For this reason, the teeth should be rubbed at least once every day with a soft tooth brush or a bit of linen folded in two or three thicknesses over the finger. Wetting with simple water is usually enough, but sometimes tooth powders are desirable, though of these only the finest should be used. Peruvian bark very finely powdered is, I think, one of the best things to use. It does not scratch the enamel as those powders do which contain chalk, and is very good for the gums. The objection to it is its bitter taste, which children dislike. Orris root also finely powdered, is what I use when the Peruvian bark is objected to. Only a small quantity of either should be used, and that only occasionally—rarely oftener than once a week.

Diet.

The diet of the child continues to be a matter of great importance. The mother should keep a constant oversight of it, and immediately put a stop to

the use of any article that is found to be injurious. Following the course pointed out as adapted to the latter part of the second year, very careful experiments can be made with other articles of food. The rule should be scrupulously adhered to, that only the simplest and most easily digested food is to be used. Spiced dishes; those which are commonly called very rich, that is, in which there is a great deal of butter or fatty substance; pickles of all sorts; most fruits preserved in thick syrup,—all this class of substances are to be almost absolutely forbidden. Milk may still be freely allowed, and should constitute a large part of at least one meal every day. The ordinary simple vegetables may generally be used if cooked, except green corn and beans, whether green or dry. The vegetables which are eaten uncooked should be forbidden, as they are, without exception, difficult of digestion. Most nuts and dried fruits are injurious, though boiled chestnuts may be occasionally given as a great treat. Sugar is often blamed for much that it does not do. When given at meal-times, and in moderate quantities, I do not remember to have seen it do any harm. Candies, however, I do not include in this remark. These are often injurious from the effects of other

ingredients than the sugar. Those which are painted are especially to be avoided, the paint often containing very poisonous compounds of lead, arsenic, and other metals. Those which are highly flavored, as with peppermint, sassafras, &c., contain more or less of volatile oil, on which their flavor depends, and these are too stimulating to the stomach to be often used. But another very great objection to candies arises from the fact that they are given usually between meals, and the process of digestion is interfered with. It is necessary that the stomach should rest between meals. After a certain amount of food has been taken into it, digestion commences, and if no more than proper is eaten, or it be not too unmanageable, it is all dissolved and passed into the intestines. After the stomach has thus disposed of a meal, it ought to have time to rest, for it is no more possible for the stomach to keep digesting all the time, than it is for the legs to keep walking all the time. If it is attempted to make it do so, it becomes exhausted and weakened, and then cannot digest even proper quantities of simple food. This produces what is generally known as dyspepsia, and is attended by sour stomach and many other inconveniences. The rule

then, should be, that children, as well as grown people, should have regular hours for their meals, and not be allowed to eat between them. They will usually be willing to go three or four hours, and they can be allowed to eat oftener than adults, provided it is at regular times. A regular luncheon may be put in between the meals of the family, which are farthest apart — but this should be at as regular an hour as dinner — and consist of simple bread and butter, with water or milk, so that the child may not be tempted to eat too much. One can now understand how candy, given as it ordinarily is, in violation of all these rules, and disregard of all these principles, must be injurious. The destruction of the teeth which is usually attributed to it, arises indirectly, and not from the immediate effect of the candy upon them. The impaired nutrition, the acidity of the stomach, both affect the teeth and serve to destroy them. These should, therefore, be given about meal time, and in very moderate quantities, those varieties being selected which have the blandest taste, and come the nearest to pure sugar. It may also be well for the mother to remember that a child that is accustomed to receive at once a pound of *bon bons*, is no better satisfied with the pound, than is one not

accustomed to that quantity, with only two or three — but his stomach and digestive powers are injured much more.

The Toilet.

The toilet of the child should be carefully attended to. By this, I do not mean simply its hair, but all that pertains to its personal habits. Cleanliness is one of the cardinal virtues, and should be especially instilled into the young mind. A daily bath it should be taught to consider a necessity, and as early as may be, it should learn how, not only to wash its face and hands, but to sponge all of its body. The habit thus early formed, will not be readily abandoned, and will conduce very much to comfort and invigoration during adult life. The least that should be done is insisting upon a thorough washing once a week all the year round. This should not be inflicted as a sort of punishment, but it should be looked forward to as a pleasure.

The Dress.

The dress of the child should continue to be adapted to the climate and the season, and to be guided by the common sense principles which I have before pointed out. I have not unfre-

The poor child often to be envied by the rich.

quently seen, during Winter, boys in the street with sacks of elegant materials, trimmed with lace, exposing the whole upper part of their chests and leaving the arms bare below the elbows (though the hands are carefully gloved), while the legs are bare from a little above the knee half way to the foot, which is covered with a light shoe and thin stocking. The arms and necks of their sisters are equally unprotected, though fashion fortunately allows them to wear longer stockings. But their dresses are short and stand out (aided at present by substantial hoops) in such a way that their bodies are almost entirely unprotected from their waist down. Their pinched features, blue lips, and shiverings testify to their sufferings, although they look as if they had just stepped out of the last Paris fashion plate, and their parents are sure that they are "*comme il faut.*" They have good reason to envy the little fellow who trudges by well wrapped in a good warm coat, though it comes down to his heels. It may be well enough for stout highlanders to have their legs bare in Winter, though they are not over fond of it; but a child cannot endure it. If a mother were anxious that her child should have the bronchitis, or lung fever, or croup, I could not point

out a more certain way to contract one of them, than to leave the body thus exposed, and it is only a wonder that any survive it. Almost every physician called to treat these children for colds, knows how difficult it is to cure them, if indeed it is not impossible, unless a more rational dress is adopted. Even in the house it is dangerous, for children will run to the door or to an open window, and the danger is incurred before one can stop them.

Concerning their night dress I do not need to add anything to what has been said, unless it be to suggest that if the child should be in the habit of constantly kicking off the coverings, it is well to substitute for the ordinary night gown a garment for which I know no name, but which is like a pair of pantaloons united to an ordinary waist and coming up so as to button close in the neck. It can open either behind or in front, and has the advantage for the child, that if it does kick off the coverings it is not entirely exposed. The thickness of the material of which it is made should vary with the season.

Education.

The physical cultivation should be considered as paramount to intellectual culture, throughout this

period, and even later. It is of little consequence to a man that he was able to read and write, and to perform other prodigies of learning before he was four years old; but it is of great consequence to him that during that time, the basis of a sound constitution was laid, to enable him to meet with success the wear and tear of life. For this reason, something of the "cabbage method" should still be pursued, the mind of the child being sufficiently occupied with the thousand and one things that interest childhood, but not subjected to hot-house forcing. His mind does not need to run to waste. He will think, and he will learn, and his thoughts and learning should be guided by his parents. His habits should be attended to, that he may early learn to be neat, regular, respectful, and obedient. But it is not necessary to shut him for hours in hot school-rooms, toiling over his books. Very great wisdom is requisite, to guide a child at this period, and it is upon the mother that this charge chiefly comes. Fortunately, mothers are often equal to the task, but to too many it becomes soon irksome, and they weary of the constant repetition of the "little upon little" which moulds the young mind. The mother should remember, however, that whether she works or

rests, influences all about the child are making their impressions upon it, and these soon cannot be effaced. Neglect, then, is as injurious and as reprehensible as actual bad influence, for it leaves open the way for such influences, instead of closing it against them.

It is not only mentally, but morally, that the young mind is exceedingly impressible. The child can be early taught to endeavor to do right, and all the fundamental religious principles may be impressed upon it; not in grave theological disputations, but in the simple faith to which in its highest development we give as the greatest praise, the epithet child-like. The instructions of early childhood linger in the memory when all later impressions have faded out, and the prayers learned while kneeling beside his mother, have often been the only language in which the aged sinner could express his penitence. I may not dwell upon this topic, but urge mothers to remember, that their children are training for Eternity.

Chapter IX.

OF SICK CHILDREN.

It is not my purpose, in what will be said concerning the care of sick children, to attempt to give such an amount of information to the mother as will enable her to do without the services of a physician; and I state this at first, and distinctly, so that no one may misapprehend me. My reason is, not that some brother practitioner may find employment, but simply because it is impossible, in the limits of this or of any other one book, to convey so much information as will make mothers skilful physicians. Medicine, as a science or an art, requires long years of study before one is fitted to practice it, and even then the new fledged doctor is not trusted very implicitly. I should, therefore, be most unjust to the mother, and most unjust to the child, if I led her,

either directly or indirectly, to suppose that she was qualified to treat disease; to rely too much upon her own judgment. A person who will lavish thousands of dollars on dress, or gaiety, or show, and yet let the disease, under which her child labors, run on guessing it will be better to-morrow, that she may save the trifle of the physician's fee, must have some moral obliquity, and exposes herself to reflections if it dies, than which I can conceive of nothing more terrible, and which must be to her ever the most exquisite torture, unless indeed, her conscience be more impenetrable than adamant. It is rarely the case that physicians themselves will, when their children are sick, trust to their own judgment, but rely, unless the attack is very slight, upon some medical friend in whom they have confidence. If then a father's anxiety unfits him, after years of study, to treat his own family, should a mother venture to dose her child, when grave symptoms threaten? I certainly will not consent to aid in producing the impression that she may.

There is sometimes hesitation in sending for the medical attendant of a family when a child seems quite sick, and the parents feel very anxious, from fear that he will think it was not necessary. Some prac-

titioners, I regret to say, do, when the child is not so sick as the fond mother feared, indulge in ridicule of her anxiety, but it seems to me that no one can whose heart is really that of a gentleman. I do not fear that it will be attributed to a mercenary motive, when I urge my patrons to send to me at once, rather than suffer such anxiety, for I explain to them the simple reason, thus: in the diseases of children, a few hours sometimes makes an immense difference in the result, that going beyond the reach of medicine which at an earlier time might have been checked. If then, with the knowledge of this fact, the mother becomes very anxious, by sending at once she will not have to reproach herself in any event for an unwise delay, and if the disease is serious, the safety of the child may be secured. If the disease is unimportant, the relief to her own feelings which the assurance gives, is well worth my fee, while the child may be saved much unnecessary dosing.

In what follows I have not dwelt, on many of the signs of water on the brain, and other fearful diseases, for where they are known to the mother, the knowledge not only does her no good, but causes her a vast amount of unnecessary anxiety. My intention is, to give directions for the mother in her

proper sphere, not as physician, but as nurse to her sick child. Her duties are as necessary as those of the physician, but they are entirely different from his; both go on admirably together, while each occupies its proper sphere, but when the mother assumes the responsibility, which she sometimes does, of disobeying or neglecting the physician's directions, she does him an injustice, endangers the life of her child, and assumes for herself a fearful burden.

Of the General Signs of Disease.

To those who are not accustomed to the care of children, it seems a difficult problem to ascertain when they are sick, or this being known, to tell what is the matter. There is not, however, as much difficulty as might be anticipated, but in order that the physician may form a right judgment of the child's condition, it is necessary for the mother to observe carefully the peculiarities which the child presents. With this aid, even before children talk, or before they have learned the sign language which precedes speech, children give very certain indications of sickness. The only fear is that the presence of the strange face of the physician will, after they are a year or two old, make them a little

The contrast between the healthy and the sick child.

diffident, so that they will not make known their feelings. Under these circumstances the mother's observations become doubly valuable and important.

The healthy child is usually active; its eye is bright, its arms and legs are tossed about in very joy of living, or serve it as playthings, a constant wonderment and a constant amusement. If a little older, it is almost constantly running about or occupied with its toys, finding in this perpetual motion its invigorating exercise and one means of its fuller development. When the child becomes sick, this ceases. Its eyes become dull and heavy, or, though it is very rare, extremely bright. It lies still, or if it moves about, it is languidly and with difficulty, and for but a few moments. The very young infant ceases to toss up its arms, or to hold up its fists near its mouth ("squaring off at existence," as Dickens calls it), but lies in the lap or arms without the feeling of self support, of elasticity which it has in health, becoming almost flaccid as if it would bend or move in any direction. There is some truth in the observation that a healthy child throughout the first year sleeps with its hands somewhat raised; that is, they do not lie by its side, but are doubled, lying usually on its chest and near to its chin. In

some diseases of the brain the child throws its arms above its head or strikes its forehead with them, and it is important that such a habit should be made known to the physician. More frequently the hands are permitted to fall by the side, and this occurs in diseases such as diarrhœa, which prostrate the strength. The arms fall in any direction, and without any apparent effort to direct them. When strength begins to return, the hands again resume their favorite position, the change being gradual.

One of the most common and earliest class of signs of departure from perfect health, is derived from the heat of the body, which changes both generally and locally. In health the skin of the child is warm, but it is pleasantly so, and the surface feels smooth and soft. In very many diseases it becomes very hot throughout its whole extent, giving to the hand the sensation of burning, while the skin seems rough and hard. This may be from the irritation of the teeth, or it may be caused by some approaching disease, as a fever. It is a state of things that calls for attention. The child should be carefully watched to see if it is accompanied by any other symptom, as, for instance, vomiting. Its teeth should be looked at to see if it is not from the pressure of

some of them upon the gum, or enquiry should be made if it has played too hard, or eaten any injurious food. This dry, burning, general heat is not a symptom which points out the existence of any special disease, but it shows that there is some disturbance of the economy, the cause of which should be looked for, and if possible removed.

I said that excessive heat was sometimes local. The hands, the head, and the body, are the usual seats of it. The palms of the hands are frequently found to be of an unusual temperature, and by the early observation of this phenomenon, the physician or the parent may obtain a clue to the existence of other disturbances. Still the child is not to be considered as sick for this reason only. When a child is too much fatigued or excited, especially if it is of a nervous temperament, the palms will very frequently be observed to be hot. No disease in this case can be said to exist, but the mother should understand the repeated occurrence of the heat to indicate the necessity of providing less fatiguing sports, or longer periods of rest for the child; or else of guarding against the undue excitement to which it is subject. The same heat is produced by the irritation of the teeth as they come through the gum, and might

perhaps be properly referred to the same nervous excitement, which I have before mentioned, as producing it. Derangement of the stomach is frequently accompanied by the same heat.

Thus it will be evident that the fact that the palms of the child's hands are frequently too hot, is not sufficient reason to dose it with medicines, but it is a sufficient reason to look carefully for its cause, and that should be removed at once, if possible.

The head is another part of the body which is frequently too hot. This is perceptible to the touch of the hand, and is to be sometimes noticed on the forehead, sometimes in the back of the head. When this is slight, it is not necessary to take a great deal of notice of it, but ascertain, if possible, whether or not there is any apparent cause for it. Such disturbances as I have before mentioned, as causing too great heat of the palms, will produce slight heat of the head. From teething, however, it may be very great. As a general rule, when the heat of the head becomes very marked, if there is no vomiting, or twitching of the arms or face, or any other indication of illness, it can be allayed by bathing the head with cool (not very cold) water. If the child is constipated, a mild purgative may be

used, say a half teaspoonful or more of spiced syrup of rhubarb, sufficient to produce a single movement; or better still, an injection of a teaspoonful of sweet oil poured upon a half teacupful of warm water, may be given.

If the heat of the head increases and becomes very great, the child tossing his head from side to side, or rolling it uneasily; or if there are any twitchings of the face, eyelids, or mouth; or if the child cries with pain, putting its hands to its head, starting suddenly in its sleep, or waking with a frightened air, it is wiser to call in the physician. Mothers need not suppose that, if all these symptoms exist in combination, the child is necessarily going to have inflammation of the brain, or that terror to all mothers, "water on the brain." Still the fact that in the nervous system of the child, the brain holds a large proportion, that its diseases are always serious, and sometimes commence suddenly, at others insidiously, it is better to place the responsibility of its care where it properly belongs, viz: on the physician, and save the child from all unnecessary risks of danger.

Unusual heat of the body may be either over the chest, that is, over the ribs, or over the bowels. It

should be remembered that the body of the healthy child feels quite warm beneath its clothing, and it is not necessary to be alarmed because this is the case. Extreme heat of the chest, as well as abdomen, is noticed, of course, when the approach of a fever has thrown the whole system into unusual heat. Very marked heat of the chest alone, accompanies only inflammation of the lungs or some of their parts; that is, it accompanies only inflammation of those organs which are contained within it. Now all of these are accompanied by other symptoms, which indicate the same disease, and are all too grave for the mother to think for a moment of treating them.

Excessive heat of the abdomen frequently accompanies diseases of the bowels, that is, it, like heat of the chest, is an accompaniment of disease of the organs which are contained within the corresponding cavity. Here it is not necessarily a serious sign, though, when a child is ailing, it is well to notice whether or not it exists.

The feet are more apt to be too cold than too hot, and this is the especial fact that is to be observed. Cold feet frequently accompany too great heat of the head, as if the heat which belonged to them had been drawn off to the

brain. Affections of the bowels are accompanied by them, and especially colic. A feeble child is very apt to be subject to them, and the remedy is a building up of the constitution, an invigoration of the life powers, and an improvement of the blood-making process. Warmer clothing is usually a necessary assistant, but it must be accompanied by those measures which tend more perfectly to restore the health. Clearly, nothing can be laid down as a general rule of treatment, adapted to all conditions. A physician's advice should be taken and followed.

I have alluded to the fact, that the child, as it grows sick, lies more helpless in the nurses arms, or on its bed. Its position and motion are sometimes indicative of the part diseased, and if any peculiarity in these is observed, it should be mentioned to the physician at his first succeeding call. With some diseases of the bowels the child keeps its legs curled up, drawing its knees well towards its chest, being quite unwilling to straighten out its legs. Instinct teaches it that it is most comfortable in that position, and it therefore assumes it. At other times it allows its legs to lie in any direction, caring as little for their position as for that of its arms. Or again it will draw them up and throw them down, indi-

cating in this way its restlessness and uneasy feelings.

The head and face also give by their position, indications of importance, which are to be observed and reported to the physician. Rolling the head from side to side, is a common accompaniment of disease of the brain, but it is not a certain indication of it, as is thought by some. It should lead to increased care and attention, a more minute observance of the condition of the child, but it need not be viewed as a sign of disease beyond relief. I dwell upon this more particularly, because it will, I hope, lessen some of the unnecessary anxiety of mothers.

The face, by its varying expressions, gives very valuable indications of disease. Its general expression may be that of pain or of listlessness, of suffering, or of that indifference to everything which is scarcely less pitiable in a child. A heavy, dull look is among the earliest indications of ill-health. Instead of the illumination of the face with which the infant soon learns to greet its mother, there is a half recognition, and a drowsy, dull look, or when it has gone further, even the first bright glance does not appear. Most of the ordinary disturbances of

the health are accompanied by this change in the expression, which experienced mothers learn to interpret, by saying that the child does not look well. The cause of it should be sought, and if possible removed. It may be the only indication which is apparent, of a headache, and it may be the first announcement of an approaching fever.

From the features many indications of disease are drawn. The mouth is particularly expressive. When a child is sick at its stomach, there may usually be noticed a pale circle about the mouth, and an expression, not like pain, nor like that which we notice in adults who are nauseated, but quite peculiar, and when once seen not forgotten. The lips lose their color in a measure, and yet just outside of their margin, extending to the nose on the upper side, to the middle of the chin below, and to about the same distance all around, there is a more or less marked white circle. The lips are not usually pressed together, but slightly parted. The distinctness of this circle and the whole expression increase with the degree of nausea, so that we thus have a valuable indication of its intensity. For its treatment, turn to what is subsequently said of vomiting.

At other times the lips may be noticed to be

pressed together with some degree of firmness, while a white band, usually less marked than that which I have before spoken of, surrounds them. At the same time that this occurs, there will be a peculiar expression given to the nose by the contraction of one of its muscles. It seems like a pinching in of the nostrils, as if they were drawn together at their base. This is an indication of pain, not of nausea. The seat of the pain is the abdomen, and this expression, particularly when accompanied by a drawing up of the legs, and a curling of the body, is a sign of colic. It can sometimes be seen to pass over the face and again to go off, returning with every paroxysm. When observed in the physician's absence, it should be mentioned to him on his next visit.

The face of the child sometimes flushes for a few moments, becoming again pale. There is no danger of mistaking this for blushing if one is observing. There is the want of expression of diffidence, the absence of brilliancy of the eye, and of the traces of thought, to enable one to distinguish between them. This may occur in cases of simple feverish disturbance, but if it is accompanied by restlessness at night, or whenever the child sleeps; if there is

any disturbance of the natural movement of the bowels, particularly if they are constipated; if there is any starting during sleep, or moaning, or terrifying dreams from which the child awakes in fright, it should, though apparently so trivial a sign, induce the mother to consult her physician without delay. There is then a combination of symptoms, indicative of the first stage of the disease, which often terminates in water on the brain, and as this is the curable stage, it is important that it should be recognized. Better be alarmed too soon by these symptoms than too late.

The eyes and eyebrows are also to be noted in their changes of expression. I have alluded to the dull, heavy look of the eyes, which they very frequently have when any gastric or feverish disturbance exists. It does not need to be more particularly described to be recognized. Any crossing of the eyes, where it has not before existed, should be noted and made known to the physician, that its cause may be removed if practicable. I, of course, do not mean if it is simply a habit which the child has learned from its playmates, as is sometimes the case. The habit should be broken up before the crossing becomes permanent, but for this the authority of the parents ought to be sufficient.

Languor is often shown by the mode in which the lids are raised, as well as the position of the patient in other respects. Inability to raise the lid should be at once made known to the physician.

The eyebrows often become contracted, a scowl passing over the face more or less frequently. If not a mere habit, especially if accompanied by other symptoms of disease, it is to be noted as an expression of pain. When the peculiar paleness about the mouth is at the same time present, together with the compression of the lips, it may be set down to the credit of pain in the belly; but if these are not present, and the head is hot, the hands being frequently raised to it, it may be attributed to headache.

Many a mother has suffered great anxiety from the fact that her child does not entirely close its eyes while sleeping, worms being the least of the evils which are supposed to cause it. When this is observed, it is at the same time noted that the colored portion of the eye is not in the position which it occupies between the lids while the child is awake, but is either not seen, or only the lower edge of it is visible just below the upper lid. All anxiety on this score is unnecessary. The half open lids are evidence, if no other very grave symptom

exists, that the child does not sleep very soundly, but is rather in a deep drowse. It is true that where worms are annoying it and preventing sound sleep, the eyes have this appearance, but it also comes from the disturbances produced by gases in the intestines (wind in the stomach, in popular phraseology), or from undigested food, or from slight pain in the abdomen. The rolling up of the eyeballs is simply what occurs with every one when we close the lids, but from their being partly open the lower edge of the iris comes in sight, or all is white. Of this turning upward of the balls, one can be satisfied by putting the finger on the lids and feeling the direction taken by the prominence of the cornea as the eye is fairly shut, and a decided effort of the will is necessary to prevent it.

This is perhaps the best place to add that to see a sick child shed tears is always a good sign. When it occurs after protracted or severe sickness, it may be looked upon almost as a crisis, affording as it does, evidence of improvement. But the converse of this proposition does *not* hold true, namely, that if the patient does not shed tears, the case is very grave. It may or may not be, and no judgment can be drawn from it.

Intolerance of noise and light.

When a child gives any indication of being unwell, it is wise to notice, especially if there is excessive heat of the head, whether or not light and noise trouble it. If on being carried towards the window it shuts its eyes, wholly or in part, wrinkling them with that expression which adults have when they have a headache and shun the light, it should be reported to the physician. This accompanies simple headache in children, as well as in adults, but is sometimes of more importance. If noise troubles the child it will, if able to talk, say so, but if not there will be increased restlessness, a cringing when the door is shut violently, and an evident effort to avoid every jarring sound. Slight but unexpected sounds will startle it, making it spring forward as only loud sounds will do when it is well.

Chapter X.

OF PARTICULAR SYMPTOMS.

Of Vomiting.

Vomiting is a common symptom of disease with children, being sometimes a serious, sometimes an unimportant one. I have before alluded to the fact, that children who are nursing, often throw out of their mouths a portion of the milk they have just swallowed, almost as soon as they have done taking it. This is not sour, or at all curdled, and is in fact the result of over-filling the stomach. As soon as the child ceases to distend it by crowding more milk into it, it contracts to dimensions not so unusual, and thus squeezes out — so to speak — a part of the milk, which finds its readiest outlet through the mouth. This, I repeat, is not vomiting, and only suggests that the child should not be

allowed to nurse so long. Its greediness must be checked.

But real vomiting may occur from crowding the stomach with food. In this case, however, it does not follow immediately upon taking the food, but some time after, and is the result of indigestion. More food is taken than the stomach can digest, and it remains within it, changed only by becoming sour. More or less feverishness and loss of appetite occur, and perhaps a headache, which is not relieved till the contents of the stomach are discharged by vomiting, or till their acidity has been corrected by an alkali, as soda and saleratus, and after a time been digested. When vomiting continues a long time the food contained in the stomach having been thrown off, there is then discharged a dark, bitter substance known as bile. It is not unfrequently said, when this appears, that it is well to have such vile stuff out of the stomach, and emetics are actually given to promote its discharge. The bile enters the stomach, usually, from the very excess of vomiting which discharges it. There seems to be a movement of the upper part of the intestines, tending to carry its contents up to the stomach, similar to that in the stomach tending to throw its contents

What to do when a child is sick at the stomach.

into the mouth. The appearance of bile in the matters thrown off is, therefore, rather indicative of the necessity of stopping the vomiting as soon as possible, than of the desirableness of continuing the action, by giving warm water or any more powerful emetic. In extremely rare cases this same movement, in the wrong direction, occurs throughout the intestines till the contents of the lower bowel have been discharged by the mouth. I mention this as illustrative of the more limited action.

The best course to pursue when a child is very much nauseated, if there has not been a free and complete discharge of the contents of the stomach, is to give a full draught of lukewarm water to provoke and assist that discharge. Should it have been before accomplished, it is then better to make efforts to check it. This is best done by giving bits of ice, almost as fine as it can be chipped, and very freely. Or, if this fail, a very small mustard poultice, not more than one or two inches square, can be put upon the pit of the stomach, but should not be allowed to remain there more than two minutes, for fear of producing a blister. It is better to replace it, if it is necessary, than to cause the child to suffer too severely.

Constipation a relative term.

When the stomach still seems to be sour, even after vomiting has occurred, a small quantity of soda may be dissolved in water so that it does not taste very strong, and given till the acidity is corrected. If the vomiting is obstinate, whether it is accompanied by constipation or diarrhœa, it is better to send for the physician.

Of Constipation, Diarrhœa, &c.

The evacuations of the bowels vary in sickness very much. I have said that, in the most desirable condition of the infant, there is a discharge from the bowels very regularly twice or three times in the twenty-four hours. The habit of different individuals is different, but in children it ought not to vary much from this standard. Still, the child who habitually has three movements each day, would be considered as constipated if only one occurred; while the child accustomed to but one, although of a habit tending to constipation, would not be exactly considered as in that condition, unless at least one entire day should pass without a movement. For this reason, constipation within certain limits is relative. So, too, it is with the opposite condition, of diarrhœa, and this must be borne in mind by the mother.

Constipation, if slight, and occasionally but not frequently present, may be relieved by using the aromatic syrup of rhubarb, of which about half a teaspoonful may be given to a child within the first year, and the quantity may subsequently be increased, according to the age and strength of the child. I prefer this to castor oil, for various reasons — among others, that it is, when diluted with a little water taken much more readily. But when the constipation is habitual, it is preferable to resort to injections, either of simple water, of a mild soap suds, or of either of them combined with sweet or castor oil. Of the mode of preparing and giving these, a full description will be found in the chapter on "The Management of the Sick Room." It is to be remembered that, when given to remove a constipated habit, they must be regular as to time — being given at the same hour of the day, as nearly as possible — and after three or four repetitions the injection of one day may be omitted, in the expectation of a movement without it. The next day the injection should be repeated, but by gradually lengthening the interval between their administration, and taking care that the habit of a movement of the bowels be formed, they can

gradually be dispensed with — a thing which is always to be intended during their use.

The too rapid and frequent movement of the bowels should be checked by some simple means, or if these do not suffice, the physician's advice should be sought. Perhaps these observations may be of use. A diarrhœa which consists simply of stools rather loose but otherwise of natural appearance is the least important; when they become quite watery, and their several ingredients seem separate and unmixed, it is more grave. Very watery discharges, especially when vomiting is at the same time present, give a grave indication. Green discharges will frequently be found to be of some other color at the moment of passing, but to be rapidly changed by the action of the air, or of the urine. Some discharges are green when passed, but this distinction should be noted, and the physician should be informed, if in attendance, whether or not it is the influence of the air and urine to which the color is due. Blood in the discharges should always lead to increased vigilance in watching the child's condition. Slight streaks sometimes proceed from unimportant causes, but when there is a notable quantity, or when any

appears at the same time that the child is hot and feverish, and suffers from great pain in the belly, there is much reason to fear that the disease is dysentery instead of diarrhœa. This should permit no delay in placing the patient in the care of the physician, or if he is already attending the child, the appearance of the blood and the other symptoms should be at once made known to him. Food frequently appears in the discharges in an undigested state. If the diet is milk, curds make their appearance, and if it is more artificial, the pieces which make their appearance are plainly the parts of the various articles eaten. In this way the offending substance is often detected, and thus the imprudent giver of it is found out. Nurses are very prone, before as well as after a child is weaned, to give him something which he holds out his hand for, because he sees others eating it. The first intimation the mother has of it is from the restlessness of the child, accompanied, or soon followed, by a loose discharge from the bowels. A careful examination of the evacuations, after suspicious symptoms, should always be made, so that it may be distinctly known whether or not there is indigestion of the ordinary food, which, if habitual, should lead to a

modification of it; or, if the nurse has been unfaithful or imprudent in giving forbidden food, or dishonest in concealing what she has done. There frequently is no other way to detect this latter fault, and it is so common, that no nurse should be implicitly trusted till she has been watched for months, and her statements have in this way been verified. The early discharge of these offending matters is the most fortunate occurrence, for when they remain in the intestines, after leaving the stomach, they are not digested, but continue to produce a serious amount of irritation, which may cause convulsions. It is for this reason that it is customary to give a mild cathartic, as castor oil or syrup of rhubarb, where there is feverishness and restlessness, especially in a weaned child, and the condition of the gums is not such as to lead one to think that the pressure of the teeth produces it.

When curds appear in the discharges of nursing children, the probability is that they are caused by over feeding. The child nurses too long or too often, more probably the latter, and the stomach is only able to curdle the milk, without digesting it completely. It must then be thrown off by vomiting, or pass through the intestines. The remedy for

this condition, and it is not uncommon, is to nurse the child at longer intervals, or to give it less at a time; and it is most probable that both a longer interval and smaller quantity are needed. It is possible to make a glutton of the child at the breast, and yet no mother would wish to do so. Prevention is, in this case, vastly easier than cure. A diarrhœa is one of the methods by which nature intimates to the mother that there is danger in this respect.

As to the treatment of diarrhœa, whole pages might be filled concerning it, and yet my purpose does not allow me to speak of it too minutely. The regulation of the diet of which I have just spoken, is one mode of treatment, and a most important one. It should be at once resorted to, and if it is not all that is needed, it will be always necessary. For a child that is nursed, a diminution of the quantity of milk, with the division of the gums when swollen, will usually give relief, especially if increased care is taken to give the child fresh air. The sleeping apartment should be well ventilated, and at least once every day the child should be carried out to walk, or ride, so as to be thoroughly refreshed. In fact, all those conditions which I have previously pointed out as desirable for the hygienic care of the

child, should be scrupulously attended to. If this is not sufficient, resort may be had to chalk mixture, containing no paregoric, of which a half or even a whole teaspoonful may be given once every two or three hours. This medicine should always be shaken up before a dose of it is poured out. During very warm weather, it is apt to ferment, and for this reason I add to every four ounces of it about one-half ounce of the compound tincture of cardamoms, which is in itself, a very good medicine in this condition. The dose of the mixture may, with this, be made a little smaller.

When a diarrhœa occurs in a child that is nursed in part and fed in part, it should be at once confined to its mother's or nurse's milk, even at the expense of some drain upon her. This is, in itself, much towards a cure, but the chalk mixture may also be used, if necessary.

If the child is weaned, resort must be had to a milder diet. Its milk must be boiled, and perhaps reduced in quantity, or a little cream may take the place of the milk. If these appear still to irritate the bowels, it may be well to carefully try changing to the milk of another new milch cow, or goat, and when all these fail, or even sooner if not too incon-

venient, the milk of a nurse can be squeezed from her breast and fed to the patient. The child that is weaned, very soon forgets how to nurse, so that it cannot usually be again made to take the nipple.

For one that is older, and that has become accustomed to a solid diet, it is necessary to pursue a somewhat different course as to minutiæ, though the principles which are to guide in selecting are the same. All substances which are not easily digested are to be at once abandoned. The diet must be limited, both as to its elements, and to its quantity. Rice is one of the articles which is the most frequently resorted to, and when it is relished, is beneficial. The usual way of giving it is boiled in milk, but it is unimportant how it is cooked, if it only be thoroughly done. There is not any special virtue in rice, as some seem to suppose, which justifies its selection, and it often becomes disagreeable to the child if given continuously. I have known the disgust to it thus acquired, to remain unconquerable for years. Some of the articles enumerated previously, while speaking of the diet of healthy children, can be used, more particularly those which contain a good portion of starchy ingredients. Rice is useful, for the reason that almost the whole of it

Rice. *Sweet potatoes.* *Bread and crackers.*

can be digested, and very little is left to pass along the intestines, by its irritation causing their movements to continue. Had the rice been ground up with its hulls on, this would not be so; but the undigested pieces of the hull would constantly irritate the bowels, and rice thus prepared would be one of the worst possible articles of diet when a diarrhœa existed. I thus illustrate the fact that, in itself it has no particular curative power, and that other articles can be selected, which will be equally useful. The sweet potato is one of these, but it should be thoroughly ripe and perfectly sound, and never given to even a healthy child if it has become in part black, or has the smell of rose-water. Arrow root is used for the same reason, the error in its use consisting chiefly in giving it to too young children, whose digestive organs are not fitted to receive starchy food. Very light wheat bread and crackers are of the same class, but bolted flour must be used, not that which contains any of the hulls (that is, coarse wheat flour), for the same reason that rice ground up with the hulls on, would be rejected.

Still, the child will often require something beside this diet. Boiled milk is a very good addition to it, containing as it does many of the elements which are

required in the nourishment of the body. When this does not seem to agree with the stomach, or to make a variety when it does, soups may be resorted to, and these may be thickened with rice. Under this head I include all animal broths, such as chicken water, beef-tea, and the like. It is to be observed that the fat is always to be carefully skimmed off, especially if chicken is the meat used, the fat of this fowl frequently appearing to act as a cathartic. I do not know that it is necessary to dwell more minutely upon the diet, unless it be to add that it is a mistake sometimes made, to confine the child to animal jellies, such as those made from calves' feet, or isinglass. They do not contain the materials necessary to nourish the child, and an adult confined to them would soon starve to death. They may be used occasionally, or as a means of giving wine or brandy to the patient when it is necessary, but this is their only use.

A child with diarrhœa should be limited in its use of cold drinks, and especially of water. It is usually thirsty, and if allowed to do so, will drink very large quantities of water, and very frequently. Its milk should be given as warm as it will bear it, as should its broths and other liquids, except in very

rare cases, when vomiting is excessive, and it is necessary to give very minute quantities of iced fluids. But it is not necessary to compel the child to suffer from thirst. Ice, to the good effect of which, in vomiting, I have before alluded, is to be given, and in the same way — that is, by chipping off little pieces of the size of a bean, and putting them occasionally into the mouth. It is, in large measure, the heat of the mouth that makes the child want water, and even iced water, especially if it is given in teaspoonfuls at a time, as some recommend, does not allay the sensation. By giving ice in these small bits, but little water is taken into the stomach, and yet the mouth is cooled, and the patient is satisfied. Any one can try the experiment of drinking water when suffering from diarrhœa, and it will be found that a discharge from the bowels will almost immediately follow, while no relief will be afforded to the thirst. But by taking ice in bits the thirst is satisfied, and the movement of the bowels is not stimulated.

The child with diarrhœa should be kept as quiet as possible, and sometimes be obliged to remain in bed for this reason. All exposure to being chilled, as from the night air, should be avoided, at the

same time that fresh air and sunlight are carefully admitted.

The child that is weaned and accustomed to solid diet must, as to medicines, so far as the mother is concerned, be treated much as other children, though somewhat more powerful astringents may be added to the chalk mixture. A very good combination is this:—Take of chalk mixture, three ounces; of tincture of kino (or catechu), half an ounce; of compound tincture of cardamoms, half an ounce. Of this, the dose for a child eighteen months old is one teaspoonful every two hours, if the discharges are very frequent, and at longer intervals if not—care being taken to shake the bottle, before pouring out the medicine. I recommend this mixture with confidence, because I have used it very frequently in cases of simple diarrhœa, and usually with great benefit. By no means would I intimate that it will cure every case, but it certainly does many, and in *simple diarrhœa* (for I repeat it is for this disease that I recommend it, and not for cholera infantum, nor for dysentery), mothers may use it with confidence. It is well, however, to first give a teaspoonful of the aromatic syrup of rhubarb, especially if any undigested food has been

passed; a little soda can be added if there is acidity of the discharges.

With all this hygienic and medical treatment, if the child does not soon improve — much more, if it grows worse — the physician should be called.

It may be wise to add that while a diarrhœa lasts, and longer, if the child is subject to its return, a piece of flannel should be worn over the bowels, and if the child is delicate, a flannel shirt should be put on. How this acts I shall not pretend to say, but I know that it is frequently attended with great comfort to the patient, and a manifest improvement in all the symptoms.

When vomiting and diarrhœa commence at the same time, the mother should not trust to her own skill, especially if the discharges are watery. There is too much reason to apprehend that the disease is cholera infantum, and a physician should be called.

The same course should be taken when blood appears in the discharges, dysentery being the disease in that case. If the physician cannot soon be present, some of the astringent mixture may be given, and the general hygienic treatment which I have recommended should be resorted to; but he should have the responsibility of the case.

Of Coughs.

It is not necessary for me to define exactly what is the meaning of the word cough. Every mother knows what it is, better than I can tell her. There are, however, various kinds of cough, which it is sometimes important that she should be able to distinguish.

Ordinary colds, accompanied by a discharge from the nose, and sometimes by an unusual amount of the secretion of tears, frequently give rise to coughs of various degrees of severity, and with different sounds. The chief seat of the disease is, at one time the throat, at another the windpipe, at another the smaller air tubes, at another the substance of the lung itself, and at still another the outer surface of the lung. With an ordinary cold, however, as the phrase is commonly understood, there is at first a dry cough which, within about twenty-four hours, becomes looser, and with each cough there is a rattling in the throat, as if there were a quantity of loose phlegm in it. This is in reality the case, and the cough brings it still farther up. The mother must not expect that the young child will spit it out. On the contrary, it is swallowed. To learn to spit

is a matter of education, requiring a long practice, though our people have the reputation of becoming shockingly skilful in it. The air passage is cleared if the phlegm is swallowed, or if it is expectorated, so that the purpose of the cough is as well answered in one case as the other.

This ordinary loose cough does not require very active treatment, but should not be neglected. Mothers are apt to err concerning it, by giving too much medicine, or else none at all. The first thing to be done, whenever a child has a cold, is to observe whether or not it is sufficiently dressed. If its neck and chest are bare, its legs naked from the middle of the calf to the middle of the thigh, and its arms almost entirely uncovered, it is of no use to dose it, till all of these errors are corrected. The disease will continue in spite of medication, just as a fire will burn so long as you furnish it with fuel, though you do occasionally pour on a little water. Call to mind, then, the advice previously given as to dress, and having acted accordingly, there is a strong probability that remedies will be successful.

For a child that is under ten years of age, and is laboring under a cold, attended with cough, I

usually direct quite small doses of the syrup of ipecacuanha. It is not necessary, nor is it desirable, to nauseate the child, and minute doses are better to commence with, it being easy to increase them if there seems occasion. Different children bear different doses of this, as well as other remedies. To a child only a month or two old, I do not often give even this, unless there is more grave disease than I am now supposing to exist. At this age, I use the syrup of tolu, of which one-fourth of a teaspoonful may be given every three or four hours, in a teaspoonful of water. Occasionally children take it more readily if equal parts of the syrup of tolu, and the syrup of wild cherry bark (prunus virginiana), are mixed together, a fourth of a teaspoonful of this mixture being given every two or three hours. When the child is older, say three, but under six months, I use, as I have said, the syrup of ipecacuanha, but of this only three to five drops in a teaspoonful of water, once in three or four hours. From the sixth to the twelfth month, from five to twelve drops may be given, and during the second year from a fourth to a half of a teaspoonful. Small as these doses are, I have frequently seen them make a child vomit, and the rule should always be (remem-

ber, I am speaking of an ordinary slight cold), when one dose does this, to let a longer interval elapse before the next dose, which should also be decidedly smaller. If preferred, the ipecacuanha may be given in a half of a teaspoonful of the syrup of tolu, or of the combination of this with the syrup of wild cherry.

For children that are over two years old, I commonly order brown mixture, as it is called — an old-fashioned prescription, to the good effects of which my attention was called by one of my instructors, while I was a medical student, and which I have used with a great deal of satisfaction. It is not what is termed a very elegant preparation, but it is what is far better, very useful. It is made in this way: — Take of powdered gum arabic, two drachms; of extract of liquorice, two drachms; boiling water, four fluid ounces (equal to one gill). Dissolve the gum arabic and liquorice in the water, and add of wine of antimony, two fluid drachms (equal to two teaspoonfuls), and of laudanum, twenty drops. The medicine should be thoroughly shaken up before a dose is poured out. Of this, a half of a teaspoonful may be given every three hours to a child under four years, and the dose may be increased to one

teaspoonful given with the same interval. For an older child a correspondingly larger dose may be given, and the proper quantity may be judged of from the fact that the dose for an adult is a tablespoonful. The only disadvantage attending this medicine is that it does not keep well in a warm place. On this account it is not desirable to make up large quantities of it at once.

The diet of a child laboring under a cold, whether there is cough or not, should be rather restricted, not to the extent of starving it, but it should be kept a little short of what it ordinarily eats, and the difference should be chiefly made in the most stimulating parts of its diet, as the meat. To "stuff a cold" is an injurious, though a common practice.

I desire it to be distinctly understood, and therefore repeat, that the advice which I have thus given, goes upon the supposition that the cold is not a severe one. It is not safe, when it is so, to do without the advice of a medical man called to see the particular case; and though nothing more may be necessary, it may be of importance that the most active remedies should be at once resorted to, and of the moment for this the mother cannot always judge.

The different seats of the diseases which may cause coughs have been spoken of, and in these the coughs, or the modes of breathing, differ. Whooping cough is one of the most common varieties, and the one which is most frequently treated by the mother without the physician's advice. Yet this, when it is severe, ought not to be allowed to go without professional attendance. In the mild cases, the medicines which I have just advised to be given for ordinary coughs will suffice, and I shall not venture to recommend more powerful remedies in a miscellaneous way. It is not possible to tell, at first, whether or not the attack is one of whooping cough, but it is of less importance that the treatment is not much varied. If there has been suspected exposure to it, the proper precaution is to prevent, if possible, the exposure of other children to it, by keeping the patient away from them; and this, whether they are of the same family, or strangers to it. The distinctive mark of the disease is that from which it derives its name, a loud whoop occurring occasionally during the paroxysm. It seems as if the child coughed till it could no longer expel air from its lungs, and then filled them again with a long inspiration, and that, during the passage of the air

inward, it makes in the upper part of the windpipe the noise referred to. The child may be playing as ordinarily, when suddenly it begins to cough, driving the air out and not taking in breath again, the cough growing shorter and quicker, until the face may look quite dark colored; and then comes the long inspiration, of which I have spoken, with the peculiar whoop; and this may or may not be followed by the cough again, that in its turn to be succeeded by the whoop.

There is another peculiar cough to which children are subject, and which it is well to recognize. I mean that which precedes the breaking out of measles. It is accompanied by a watering of the eyes, which look reddish and almost blood-shotten, and are filled with tears, though not as if crying. There is, at the same time, a watery discharge from the nose. No whoop accompanies the cough, which is often short, but not repeated like that which I have just described. It is usually described as ringing. It is somewhat like a hoarse cough, and is peculiar; when once heard it is not easily forgotten, but cannot be described by words.

But the most fearful disease which is known by a peculiar cough is croup, which is justly a terror to

mothers, and the peculiar symptom of which no physician can hear with perfect equanimity. This cough is also often described as ringing, but it differs entirely from that of measles. Unlike whooping cough, the sound is produced when the air is expelled, not when it is inhaled, and it is repeated with each cough. It is as if the air were driven through an opening rather obstructed by a substance not very firm, nor very loose. It has not the rattle that is heard when the windpipe is stopped by loose phlegm. Perhaps it is best described in its first stage as a loud, sonorous, barking cough, while the inspiration, though not accompanied with a loud noise, is as if the air were drawn through a narrower opening. In fact, the child often feels as if the air did not enter the lungs readily, and its complaints are to this effect. Nothing more than an apparently ordinary cold usually precedes this attack, which may come on suddenly, often without being anticipated, and during the night.

Before going farther, it ought to be distinctly stated, that there are two varieties of croup, one of which is called membranous or true croup, and the other, spasmodic croup. The spasmodic is of the most frequent occurrence, and fortunately is rarely fatal

Spasmodic croup rarely fatal.

The membranous is of much more rare occurrence, but is often fatal. At first it is difficult to distinguish between them, and it is on this account that it is wise to resort to the advice of a physician as soon as an attack commences. The mother becomes in time, after a repetition of attacks, somewhat accustomed to treating it, and the fact that her child has had spasmodic croup, makes the probability greater that any subsequent attack is of the same class. A severe recurrence of the disease ought not to be trifled with, for it is possible that the membranous may have succeeded to the milder form.

It will now be evident how it is that one may speak of croup as an exceedingly alarming disease, and another may consider it a mere trifle. There may be found physicians who will boast that they always cure this disease, and no more dread to meet it than they do to visit a friend. It has happened to me to hear one and another speak of almost every grave disease in this way, and now when I hear such language, the conclusion is to me inevitable that the speaker has been fortunate in the class of cases which have fallen to his charge, and has never encountered the graver forms of the disease. I do not intend to be understood to say that all

treatment is, in my estimation, equally beneficial, or equally inert. Much depends on the treatment, and the particular course which is pursued, especially in the early stages of the disease. But with regard to croup, one may say very truly that he has cured all his cases of the disease, because he has never had one of the graver variety. The man who has never lost a patient sick with croup, never can have had but a very few cases of the membranous form, for statistics throughout the world show that a very large proportion of cases of this disease terminate fatally. To this digression I have given way, that I may put mothers on their guard against any boasting pretender with whom they may chance to meet, or to whom over zealous friends commend them.

When a child is heard to cough in the croupy mode, which I have attempted to describe, it should be kept in a warm room and carefully watched. If the cough returns repeatedly, and the same sound characterizes it,—if slight fever accompanies it, and more or less restlessness,—an emetic can be given. This does not require to be an excessive one, but quite moderate, free vomiting being what is wanted, and not a continual and protracted retching. The dose for a young child should of

course be much smaller than for one that is six years old. It is better to give repeated small doses, than one large one, sufficient to act very powerfully. The reason is, that there is a great difference in the ease with which different persons are brought under the influence of emetics, and it is much easier to repeat doses to one who does not vomit readily, than it is to put a stop to excessive vomiting, when it has been produced.

To a child under a year, a quarter of a teaspoonful of syrup of ipecacuanha may be given, and repeated in twenty minutes if no vomiting occurs previously. When free vomiting has been produced, one-half the quantity can be given at the same interval, so as to keep the patient slightly nauseated, though not to the degree of vomiting. A child that is very robust may have, instead of this, the same quantities of hive syrup, a preparation which can be procured of any druggist. But it is to be remembered that this is much more powerful and prostrating than ipecacuanha and to be used with more caution. A child that is between one and two years old, may have a half larger doses; a child that is a year older, may have double the doses of the child under one year, and for the succeeding years the doses may be proportionally increased.

The after treatment of spasmodic croup.

When the disease is spasmodic croup, the effect of vomiting is usually to loosen the cough and to restore it to a more natural sound; when this is done the distress is removed. This variety occurs most frequently in the night, the child awaking from its sleep to cough, or even coughing without waking. After vomiting has occurred and the cough has ceased, the child having, of course, been roused by the operation of the medicine, it frequently falls asleep, and may pass the rest of the night without farther trouble. The disease is, however, very apt to recur on the succeeding night at about the same time, and this should, if possible, be prevented. During the intervening day the patient should be kept from taking additional cold, and for this it is sometimes desirable to keep him in a warm room throughout the whole of it, administering the proper medicines tending to the same effect. These I shall not venture to speak of, for fear that some one may rely upon them when it is membranous croup that is present, and thus the time for cure may be allowed to pass unimproved. The directions which I have given are not to be relied upon to the exclusion of a physician's advice, but, as I have before said, that should be immedi-

ately sought. As he cannot always go at once, the time can thus be occupied to the best advantage till he arrives, when his directions should be implicitly followed.

A child that is subject to attacks of spasmodic croup, should be guarded with unusual care from the changes of weather, and all those influences which, by observation, are found to precede the paroxysms. I do not intend to be understood to say that he should be constantly kept in the house, or prevented from engaging in the sports of his age which are invigorating. He should, however, be more scrupulously protected from the evening air, and his clothing should be more carefully arranged to protect his chest, and in general to keep him more constantly warm.

A child that has had one attack of membranous croup, should be still more carefully defended from all these influences. There is no advantage in excessive anxiety, and yet a mother must, under such circumstances, feel that her child's life hangs if possible, on a more slender thread than that which before sustained it. The happy medium is here, as always, the best; neither too much anxiety, nor too much indifference.

Other coughs.

There are several other diseases which are accompanied by a cough, but they are for the most part too serious for the mother to think of treating them. Lung fever is one of these, the cough being quite similar in its tones and frequency to that of bronchitis, which is the disease ordinarily receiving the name of a cold on the lungs. There is, however, much more fever, loss of appetite, and general constitutional disturbance. It is a grave disease, and though it is not in the majority of cases fatal, it should not be tampered with. Pleurisy is another of the diseases which is attended by a cough, but it causes a high fever. The cough is more suppressed than in lung fever, and when a full breath is taken in, there is a catch at a certain point, as if a sharp pain shot through the chest, which is indeed the case. The disease is not a common one in children, and when it does occur a physician should treat it.

Chapter XI.

THE MANAGEMENT OF THE SICK ROOM.

Some observations upon this topic cannot be misplaced, for much suffering may be caused by the ignorance of mothers concerning it. When an adult is sick, the expression of his feelings, which he is able to give, causes his attendants to take proper precautions against annoyances. But the young child is either unable to talk or to make known his troubles, or, as is frequently the case, his troubles are thought to be whimsical, and unworthy of consideration. Still, the arrangement and management of the sick room are often of more importance to the child, than they are to the grown person.

A child that is slightly unwell does not require to be shut up in a separate room, or to be deprived of ts ordinary occupations. Still, it should be some

what humored in its languor, and allowed, if it inclines to do so, to lie upon its bed, or to lounge upon the sofa, or to keep entirely quiet. A child that has had an attack of croup, more particularly of spasmodic croup at night, will be too much disposed to play in his usual way, and it is necessary to restrain him somewhat by keeping in a warm room, and occupying his attention by more quiet amusements than his ordinary ones. A child that has a diarrhœa will also sometimes be inclined to too great activity, as well as to eat and drink too much, and therefore must be kept still as well as dieted carefully.

But it is more particularly of the care of children that are suffering from disease, to such an extent as requires them to be confined to bed most of the time, that I now speak; that is, when their apartment can properly be called a sick room.

When a child is attacked with such illness as seems likely to be of some days duration, the most airy, comfortable, and quiet room under the mother's control should be assigned to it. If the nursery is such a place, and there are not any other children to occupy it, it is better not to change from it, as the child is not distracted or alarmed by the newness of

the objects about it. But if there are other children in the family, they should be moved to another room or the patient should be so transferred — which should go, depending often on the advantages which the second apartment presents for the purposes of an invalid. It is in this way that quiet is in a measure secured. Every one who has been sick, knows how desirable it is to be quiet, and how often noise, bustle, and confusion in the room seem to cause more than half of the suffering. But there are some other precautions to be taken, in order that the same end may be secured. These depend on the mother and nurse, or whoever may be in attendance upon the patient. The sick child is often annoyed by the rustling of garments, by the squeaking of shoes, and by the constant movements of those who are about it. A silk gown is not a fit thing for such an occasion, for this, if for no other reason, and soft slippers in which one can glide about without noise are indispensable. When the child lies quiet, as if attempting to sleep, the occupation of the mother, or nurse, should be such as to make no noise. Even sewing, especially on some kinds of stuff, gives very great annoyance, while the turning of a newspaper will startle one almost like thunder. Conversation

at such times should be abstained from, but if necessary should be in a low, natural voice, not in whispers.

Beside securing quiet, it is often desirable to shut out the light to a certain extent, but not entirely. The glare of the sun in Summer should be softened by closing the blinds, by drawing down the shades, or dropping the curtains. This is to be done when the child is annoyed by the light, as is often the case—headache being produced or increased by it. So it is in fevers, when the stimulus of the light adds to the child's discomfort. But in diseases which last a long time, reducing the strength of the patient (such as diarrhœas), and when the patient is convalescent, it is often desirable that it should be exposed freely to the light. Judgment and common sense are requisites in this, as in so many other cases, but it may be proper to suggest that the good of the patient should always be the first and most important consideration in the sick room. Every one's comfort and convenience should yield to that.

Ventilation should be scrupulously arranged, with the restrictions as to the exposure of the invalid that I have before spoken of as being necessary in the sleeping apartment during health. The impor-

tance of a constant supply of pure fresh air is, if possible, greater to the invalid than it is to the healthy child. To shut children with such diseases as small pox, or measles, or scarlet fever, in a small or close room, is quite sure to aggravate the disease, and to expose the child's life to still greater risks. All of the diseases, however, which are attended with much feverishness, require that the child should be guarded against taking cold by draughts of air blowing upon any part that, in the restlessness of fever, may have become exposed. During Summer the windows may be freely opened if, by so doing, it is not necessary to let in too much light and noise, and during both day and night at colder seasons, a window slightly opened will often give increased freshness to the air.

The sick room should be kept as free as possible of all odors. This cannot be done unless great care is taken. It is necessary to remove, at once, all such matters as have been vomited or may have passed from the bowels, and for this purpose it is sometimes desirable to change the clothing, if that has become soiled. When a child is extremely prostrated, it will not answer to raise him up for sufficient time to do this, for he may be unequal to the fatigue of it.

But in that case he should be kept dry by placing napkins between him and the damp clothes, and by taking care to remove all of the bed clothes that can be changed without disturbing him. Cooking should not be done in the sick room, if it can be avoided, and all the preparation of the patient's meals had better be done out of his sight.

So also with regard to the medicines ; preparing them had better be done away from the patient, they being brought to him when ready to be taken. The bottles, or boxes, in which they are contained had also better be kept in another room. To see a dose mixed, and to know that it is coming, leads, by the very anticipation of it, to a determination not to take it, or produces a nausea which even more effectually prevents one from swallowing it.

When, notwithstanding the immediate removal of discharges from the sick room, the air has become tainted, several substances may be used to conceal the unpleasant odor, until a renewed supply of fresh air has replaced it. For this purpose, the usual homely methods are burning a little sugar on an open pan of coals, or on a hot shovel ; burning a piece of brown paper and allowing it to smoke ; or filling the room with the odor of coffee roasting, or

using some of the perfumed pastilles designed for that purpose. It should be remembered, however, that none of these methods *purify* the air. They simply substitute a pleasant odor for one that is disagreeable, and should not be depended on for any other purpose. Fresh air substituted for the tainted, is the only certain mode of purification, which is of sufficiently easy adoption to be of general use.

To get a child to take medicines is quite a difficult thing, if they are disagreeable to the taste. Very young children cannot swallow pills, and a liquid, or a powder that tastes unpleasantly is often spit out with wonderful promptness. On this account, especial attention has to be given by physicians to the composition of medicines intended to be administered to children. It is, in fact, quite an art of itself, from neglect of which ill-success often attends the otherwise well directed efforts. Some children will readily take medicines if they are given in pleasant syrups, while others will take them better if administered as powders, mixed with a little pulverized sugar. At other times, it is advised to mix the medicine with the child's food, especially if it is old enough to eat, on the supposition that it will be swallowed unobserved. To this last method, there

is in my mind a grave objection, from the fact that a sick child is apt enough to become disgusted with its food, not to have that possibility increased by the addition of nauseous doses. A disgust thus taken is sometimes permanent, and is injurious from shutting the child out from an otherwise desirable article of diet. Much must depend on the physician in his selection of preparations, and a suggestion from the mother as to what class of preparations are particularly unpleasant to the child, is often of great service to him. He should always give precise directions as to the mode of administering the medicine, the dose, and the vehicle. But when this is not done, the mother may be assisted by remembering these general directions. To children that are very fond of syrups, many kinds of liquid medicines, and of powders, may be given in syrups, aud the simpler the better. In almost all cases, except when there is diarrhœa, even the ordinary molasses may be used, and should the child become disgusted with it, no harm is done. Powders may be given with sugar which is very finely pulverized, there being a large proportion of sugar to the medicine. The granulated sugar will not answer so well, not being so readily dissolved, and the taste of the medicine

will precede the taste of the sugar — precisely what is not wanted. If the medicine is liquid, and the taste of it is not very marked, but the child objects to it because it is known to be medicine, the difficulty may be overcome by dropping it on a piece of sugar, and letting the child take that.

Another convenient mode of giving liquids is to administer them in some kind of herb tea which has a decided flavor. Thus teas may be made of the ordinary strength, from caraway or anise seed, and the liquid can be dropped into a little of this. Any other fragrant herb may be used that is commonly administered to children. Or, if this is not conveniently done, a small piece of candy that has a decided flavor, as peppermint, may be dissolved in water, and this can be used in the same way. Powdered candy can also be used to conceal the taste of pulverized medicines when it cannot be done by simple sugar.

But there are some medicines which it may be necessary to give and which admit of no disguise. Castor oil is one of these, and although it is now carefully refined and thus deprived of much of its former disagreeable taste, it still remains castor oil. The instances are rare in which this is not com-

pletely disgusting, though I did know one medical student who was as fond of castor oil as he was of honey, and would take it for its delicate, and to him pleasant flavor. But so I have known one of my relatives, when a boy, to prefer saleratus to sugar. These are, however, very exceptional cases. After trying almost every thing which has been recommended for the purpose, I conclude that this medicine admits of no concealment. To give it in milk is cruel, for milk will for a long time after, have a suspicious taste. I can suggest no better method than to use no coaxing about the matter, but to assure the child, if old enough to understand, that it is not a question whether or not he will take it, but that it is to be taken, and if well done a reward of a bit of fragrant candy, or other delicacy having a decided flavor, is to follow. With very young infants it is to be put in the mouth, and if it is not swallowed, the nose may be held a few minutes when it, probably will be. It should always be warmed before it is given, for then it becomes thinner and is more easily swallowed. But I confess, that with me this is not a favorite prescription, especially for children, and I do not give it so long as anything else will answer the purpose, which is not always the case.

Another difficult way of giving medicines (for it is a method of doing this, if only cold water is used), is by injection, unless it is well understood, and then it is quite easy. Very little force is necessary, in fact almost none, except to hold the child still. Injections are so important a matter that I shall somewhat fully describe the method of giving them.

It should be remembered that they are given to children chiefly for two purposes, and these are entirely different. One design in using them, is to procure an evacuation of the contents of the bowels. Another is to stop the movements of the bowels, which have become too frequent, or too profuse. Now the general mode of giving an injection is the same, but the ingredients and the quantities differ exceedingly. To move the bowels when constipated, a large quantity of fluid is necessary; to check their movements, as little as will answer the purpose of conveying the drug which is to do the real service. On the latter class of injections and their ingredients, I shall not dwell, because when needed, the child is too sick for the mother to take the responsibility of treating it, and the physician in attendance will give all necessary directions concerning these things. The drug is, in such cases, usually directed

to be given in starch. For this purpose it should be quite thick, and one or two teaspoonfuls is all that should be thrown into the bowel. As soon as the pipe of the syringe is withdrawn, a diaper should be pressed against the parts, to prevent the immediate expulsion of the fluid. The patient should then be permitted to lie quite still, especial pains being taken to prevent him from sitting up.

To move the bowels by injections when constipated, a much larger quantity of fluid and of a different character, is needed. Instead of being thick, bland, and unirritating, it often requires to be exactly the reverse of all these. The mildest injection for this purpose is tepid water, and of this the quantity varies according to the age of the child. A gill is enough for an infant during the first six months, and even less may be used at the first part of this period. Twice this quantity may be required after the first six months, though it is not always necessary to thus increase it.

When this simple remedy does not suffice to accomplish the desired purpose, it is well to add a half teaspoonful, or even a teaspoonful of sweet oil to it. When this is done, the oil, of course, floats upon the water, and the precaution must be taken to hold the

end of the pipe near the surface in filling the syringe, if it is intended to use the oil.

A little molasses, say one or two teaspoonfuls, is with some, a favorite addition to increase slightly the activity of the injection. I cannot say that I like it very well, but it can be borne in mind. The coarser the molasses the better is it fitted for this use.

Soap is a very common and good addition to the water, and by selecting different varieties, and using them in different quantities, the strength of the injection can be varied to any desirable extent. For young children, only a very small proportion of soap, and that of a mild character, like palm oil, or old castile soap, should be used. Too irritating injections are injurious, so that the rule should be, not to keep the strength greater than is required, but rather less than may be thought to be necessary. Soap irritates much more than oil, so that I frequently prefer the latter.

Other injections are used, but usually only under the directions of a physician, who can be consulted as to their preparation. Those which I mention, are the common ones of the nursery.

But supposing the kind of injection to be settled,

the question arises by what means, and in what way, is it to be given. The instrument to be used is called a syringe, and there are many varieties of it. Most of them are arranged on one of two principles, and by speaking of the class, the purpose will be answered. The most common instrument in use, is the pewter syringe, which has a short pipe, and a piston forced down directly in the barrel to which the pipe is applied. In size they vary from holding an ounce to holding a quart, but all act on the same plan. For use in checking a diarrhœa, the smallest size is all that is needed, but a large one when the bowels are to be moved. For a child under four years, a four ounce syringe is about the most convenient size, though a larger one may be better at the last part of this time. The four ounce syringes can, however, be worked with one hand, which is often quite an advantage. The piston of a good syringe works uniformly, smoothly, and steadily, when drawn up and pushed down in the tube, and this should be looked at in selecting an instrument. The pipe should be smoothly rounded, and without sharp edges or roughness.

The fluid to be injected being decided upon, and made about milk warm, the next thing is, to fill the

syringe. This is done by putting the pipe below the surface of the fluid, and then drawing up the piston. It is wise to push this thoroughly down after it is first drawn up, and then draw it up again. Much of the air is thus expelled, and the metal of the syringe is also warmed. Then reversing the position of the syringe and holding the pipe up, push the piston gently till the fluid begins to appear at the end of the pipe, thus showing that the air has all been expelled, for it is not desirable to force this into the bowel.

While the mother holds the syringe, the nurse can put the child into position for receiving the injection, — the most convenient one being with the child lying upon its back in her lap. The mother having oiled the pipe of the syringe, may then pass it into the bowel, holding the syringe with one hand so firmly that there is no danger of its being dropped, and with the other draw the parts slightly tense. As the pipe is pressed into the bowel, it should be with great gentleness, and a slight rotary motion may be given to it at the same time. It should not be carried directly up on the middle line of the body, but the end of the pipe should be slightly inclined to the left side of the child. As soon as the pipe is

fairly inserted, the piston of the syringe should be pushed down with one hand, while the other holding the body of the instrument prevents it from pressing too hard against the bowels. If the child strains and presses down, a moment should be seized when he is not doing so, for thus the fluid will pass farther into the bowel. The syringe should be withdrawn immediately after the injection has been thrown in, and a dry diaper should be firmly pressed against the parts to retain the injection for a few minutes. If more than one syringe full is to be given, the same process is to be repeated, but as I have already observed, it is better, if possible, to use an instrument sufficiently large to require but one filling. The child may be kept on his back for a little time and then be allowed to sit up, when the injection will probably be discharged.

When a child's head is hot it is necessary to make cool applications to it, and some little art is required not to do more harm than good with them. There are several ways of applying them, sometimes one and sometimes another, is preferable. The common method, which is a very good one in several respects, is simply to place wet cloths upon the forehead and top of the head, replacing them when they have

become warm. When this is done, the precaution should be taken to wring the cloth thoroughly before putting it on the child's head, so that there may not be sufficient water in it to run down upon the bed and wet it. Of course this requires a frequent renewal of the cloths, and is quite sufficient to occupy one's time constantly. In changing the cloths it should not be done too abruptly, for fear that the shock will startle the child too much. Like everything else done to a sick child, very great gentleness should accompany it.

When a more constant temperature is desired, or when it is not possible for one to sit by the child to renew the cloths so regularly as ought to be done, ice may be used. It will not answer, however, to apply this directly to the surface, for only one spot would be thoroughly cooled, and in that there would be some danger of producing the death of it by freezing, so that, after the child had recovered from the disease for which the ice was applied, he might die of the injury done by the ice. The method which is usually most convenient is, to lay upon the forehead a napkin folded, and including between its thicknesses a lump of ice as large as a goose's egg, or two or three smaller pieces. The side next the

head should be wet at first, and then the heat of the head serves to dissolve the ice, while the dissolving ice serves to keep the head cool. When the piece first applied has all gone, another napkin can replace the first, including a piece of ice as before, while the first is dried. In this way, changing the napkins with every new application, much less water runs down upon the bed and night clothes of the child. Still farther to guard these, additional napkins may be placed at each end of the one which lies upon the head and contains the ice, so that as the water runs down, it may be absorbed by them instead of wetting the bed clothes.

But a still better way is, to fill bladders with very cold water, or with finely pounded ice, not to distension, but so that they are half full. The opening should then be carefully closed by a string, tied round it so tight that there can be no leakage. Each should be wrapped in a large napkin, and one or two may be used at the same time. If two are used, one napkin should be pinned to the pillow so as to hold the bladder to the back of the head, or rather so that the head may rest upon it. The other may be allowed to lie upon the head, a corner of this napkin being also pinned to the pillow. There

is, in this way, much less danger of the pillow and bedclothes becoming wet. Instead of the bladders, bags of thin india-rubber may be used, and are, of course, drier than bladders.

It is worth while to add, that in the sick room of the child cheerfulness is indispensable to the nurse. A bright and cheerful face, but quiet and soothing manner, are great comforts to the invalid, and remove much of the irritation to which children, as well as adults, are subject. Sick children are to be amused by stories narrated in a quiet tone, by their most unexciting plays and playthings, or in some other gentle way, so as to while away the long days of illness. Attention to these little things makes the difference between a good or an indifferent nurse, and the mother should bear them in mind, that she may be able to do everything that is best for the child.

During sickness the propriety of giving food, or of withholding it, depends upon the character of the disease, and no rules can be given which will be sure to suit every case. The opinion of the medical attendant should therefore be asked, not only as to the articles of diet which it is most desirable for the patient to take, but as to the quantities. At some

Sometimes the stomach must rest.

times it is necessary to give very small quantities, perhaps not more than a half teaspoonful at a time, but this requires to be frequently repeated, and to be given icy cold. It is in cases in which there has been very great vomiting, or tendency to it, that this is required. In other cases hot drinks are required, and in larger quantities with longer intervals. The directions of the physician in this, as well as all other respects, should be followed by the mother if she has sufficient confidence in him to trust the child's life to his care. One thing, however, is of great importance to be known to the mother, and that is, that the child who is attacked by a disease in which the fever runs very high, does not want to eat and does not need to. In fact, it is better that the stomach should be allowed to rest—little more than cold water being given—rather than to be crowded with substances which it cannot digest. For two or three days after a severe fever commences, food forced into the stomach will only increase the heat, and restlessness, and headache of the patient, doing not only no good, but absolute harm. The common idea that something must be eaten after the lapse of a certain time, whether the child is sick or well, is a mistaken notion. In this

class of diseases, therefore, the mother should not force food upon the child. It is, of course, in a condition which justifies anxiety on her part, but feeding will not remove the disease. At other times it is necessary to force food into the stomach, but this is chiefly in cases of extreme prostration, not of high fever, and it is then, strictly speaking, some stimulant rather than food that is to be given. In these cases, it is as necessary to be particular to give the wine whey, or milk punch, or whatever else is ordered, as it is, in the other case, to refrain from giving even milk, water, or gruel.

Chapter XII.

OF EMERGENCIES.

There are various emergencies that may arise, and demand immediate action from whoever may be present, in order to save the life of the child, or that no time may be lost in waiting till the physician arrives. In this chapter I have grouped several of them together, believing that the information may be of value. Some of these arise from accidents which may occur at any moment, and others from the health of the child, depending upon internal, instead of external influences.

One of the most common, as well as most startling of these emergencies, is the occurrence of a fit or convulsion — these being synonymous terms — which may happen to a child that is apparently perfectly well, or may occur in the course of various diseases.

It is always startling, but it is a relief to know that though it is a grave occurrence, the majority of children who have them, unless suffering from some other disease, recover. Convulsions are evidence that there is something wrong about the great centres of the nervous system, the brain and spinal cord. But it does not follow, of necessity, that there is absolute organic disease existing in them. Thus, a child whose teeth are coming forward, and pressing against the gum, may suddenly be seized with a convulsion, and yet there cannot be said to be disease of the brain in this case. The irritation of the nervous system produced by teething, has fitted the child for the occurrence of the convulsion, which takes place at the moment when no more can be endured. So it is with irritation of the nervous system produced by undigested substances in the bowels, and these two are the principal causes of convulsions in healthy children.

Persons will be heard to speak of spasms, of fits, and of convulsions, an apparent distinction being made between them. Other terms in popular use are "inward fits," or "inward convulsions," and these are sometimes used to convey a supposed distinct idea. To aid in removing the confusion

Convulsions may be general or partial. *Description.*

sometimes produced by the use of these various terms, I will define them, giving to each what I believe to be its appropriate force and signification.

A convulsion, then, is a condition in which the muscles contract without the control of the will, and frequently without the consciousness of the individual. Sometimes it is partial, being confined to a single muscle which twitches and contracts, or it may affect all the muscles of one side, or it may act more or less upon all of the muscles of the body. When it affects the whole it is a general convulsion, and the body and limbs may be straightened out, in fact bending back somewhat, or the body may be bent forward at the same time that the limbs are doubled up, the hands being brought upon the chest, or to the face, and the knees being curled up almost against the body. The face is usually distorted at the same time—the eyes turning upward and inward, the mouth being drawn to one side, or the various muscles of the face contracting with irregularity, and producing constant but irregular motions. The breathing becomes, at the same time, interrupted by sighing. This may occur suddenly, last ten or fifteen minutes, and then, the motions ceasing, the child breathes more regularly and drops off into a sleep, not usually lasting more than half an hour.

The word fit is used to describe precisely the same thing when general, and the words are therefore identical in meaning, though convulsion is the least ambiguous. I shall therefore employ it in preference.

The word spasm is sometimes used to describe the same general condition, but it is more frequently reserved to represent that partial contraction of a single muscle, or a single group of muscles, to which I have before referred. It is very convenient to make this distinction, though it is not unusual to hear general spasms spoken of, and certainly there is no impropriety in the use of such a phrase.

The expressions "inward fits," and "inward convulsions," seem to be applied, so far as I have observed, to that condition in which there is slight motion about the face produced by irregular contractions of muscles, but in which there is no general convulsion. I have also heard them used when the eyes have turned up under the lids, the child half sleeping and restless. They are intended to imply that there is some dangerous internal condition, but are used so vaguely, and are so unnecessary, that they should be entirely discarded.

Without spending more time upon these distinc-

tions, I may add that in children both partial and general convulsions arise from the same causes, and require, in the main, the same treatment. The partial are evidence of less protracted or extensive influences, and, as might be supposed, frequently precede the more general. I shall therefore speak of them together.

When convulsions occur in a child that is in apparent health, some cause of irritation can usually be found. There may or not have been premonitory symptoms. They almost always occur, but are frequently overlooked. They consist in complaints of slight dizziness, or headache, with a flushing of the cheek, or it may be of unusual pallor. The child does not seem quite right, and yet is not, in appearance, greatly out of tune. Sometimes he appears for a few days to be languid, and there may be derangement of the bowels, either by their being constipated or the reverse. But after thus ailing for a few days, he is suddenly seized with a convulsion while lying on his bed, or it may even be while playing as usual. The first question is as to what is to be done in this condition.

There is a saying, most common among the French, I believe, to the effect that if a little salt

be put upon the tip of the tongue, it will stop the convulsion. Now I will not advise any one to try this, but thus illustrate the fact that convulsions, when occurring in a healthy child, frequently terminate favorably without any treatment by medicine. Still it is not desirable to let them run on, without any efforts to put a stop to them. Some little time will be required to prepare the materials for the treatment subsequently recommended, and this time is quite sufficient to try the experiment of waiting to see if nature will, without aid, accomplish a cure. During this time the child's clothes should be unloosed, especial search being made for pins that may be pricking it, and sometimes are the only occasion of the disturbance. Care should be taken that the patient does not hurt himself by knocking his head against hard substances, or in any other way. If the hands are curled up, the fingers being closed upon the palm, there is a great inclination on the part of the bystanders to constantly draw them open, in the common belief that they will thus do something for the good of the patient. This does not, in fact, do any good, but if it will keep any one from doing something which is absolutely injurious, the desire may be gratified, although it is decidedly

better to leave the child entirely to himself, so far as these things are concerned. After five or even ten minutes have been allowed to pass, if the child does not become quiet, either dropping asleep, or waking up in surprise that so many should be standing round him, a warm bath may be prepared, his clothes stripped from him, and he put into it. Its temperature should be as high as he can comfortably bear, care being taken not to scald him; the safer way being to make it so that it is about as warm as the mother's hand, plunged in half way to the elbow, can comfortably bear. Should it be desirable, warm water may be afterwards added to it, while the child is in the bath. In this water his body should be placed, with his head and shoulders out, and upon his head there should be placed a constant succession of cloths wrung out of cold water. The design of these baths, and of the cold application at the same moment, is, to draw the blood to the surface from any internal organs, whether the brain or other to which it has crowded, and thus to relieve the condition on which the convulsion depends. Five minutes is as long as the child should remain thus immersed, it being better to repeat it if necessary, than to continue it without any interruption. A soft and thick

blanket should be ready, to wrap around the child's body as soon as he comes out of the tub, and he should thus remain, no effort being made to dress him while the convulsion lasts, or during the time that he lies asleep after it has passed off. Still, there is no occasion to expose him to taking cold.

When there has been constipation previous to the attack, or when the attack does not yield to the use of the warm bath, an injection should be given. For this purpose, it being desirable that it should act promptly, it should be of a stimulating character; and I therefore recommend a soap suds injection, made strong for the age of the child, and add to it a full dose of castor oil, or sweet oil if the other is not at hand. Small worms, commonly called thread worms, will sometimes excite convulsions, and therefore, when a child is thus seized after these have been seen in the discharges, the injection may precede the bath. In this case, a half of a teaspoonful of tincture of aloes added to the injection will make it more effective, this destroying the worms more certainly. So important is the injection, used in this way, that immediate relief sometimes follows the discharge which it produces.

As soon as possible, the probable occasion of the

convulsion should be sought for, that it may be removed, for if it continues it is not unlikely to produce the same effects again, and thus a recurrence of the convulsions would be secured. For this purpose the gums should first be examined, if the patient is of an age to make it probable that the teeth are the cause of the disturbance. If there is any swelling of the gums, they should be cut in the manner I have previously recommended. Of course it is better for a physician to do it, but if he is too distant to arrive soon, or if he is detained, the mother is justified in doing it herself. Should there be no cause to believe, after examination, that pressing teeth are the cause of the disturbance, or should there be positive reason for the opinion that it is caused by food that has been taken by the child, a mild emetic should be given. By positive reason, I mean, that it is known that there has been some unusual quantity eaten, or that the child has had that which is not like its ordinary diet. Thus, a nursing child may be thrown into this condition in consequence of the imprudence of the mother in some article of diet, which, by its injurious effect upon her, has changed the quality of her milk; or strong mental emotions, such as anger or fear, may

produce the same effect, and in the same way. The child that is weaned may have had something undigestible given to it—raisins, for instance, which are among the worst things that a child can eat; or may have eaten its food too hastily, swallowing it in pieces instead of reducing it to a homogeneous mass by chewing it very fine. Apples are especially apt to be, in this way, the cause of trouble. To excite vomiting, take a feather first, about as large as a small goose quill, such as are used for pens, and, opening the mouth, tickle the back part of the throat as far down as can be reached with the tip of the feather. If this does not succeed warm water may be given, and if this does not cause vomiting almost immediately, it may be followed by another half tumbler full, to which a quarter or third of a teaspoonful of ground mustard has been added. Common salt, in the same quantity, will answer the same purpose, I think not quite so readily or so easily as mustard. The disturbance of the whole system which the act of vomiting produces, seems to act quite favorably, so that the only objection to its being resorted to is from fear of its excess. It is for this reason that I have not recommended more violent emetics, such as ipecacuanha, squills, and anti-

mony. It is, however, to be borne in mind that during the time of the actual convulsion, the child cannot swallow, and there is, therefore, no use in pouring these or any other remedies into its mouth. In fact, to do so is to run the risk of having some part of the liquids drawn into the windpipe, instead of the stomach, and a violent fit of coughing, or even suffocation, may be thus produced. I repeat, that the warm bath and other external applications are recommended to put a stop to the convulsion, while the emetics and other remedies are intended to prevent its recurrence, by removing the cause.

After the occurrence of a convulsion arising from the causes of which I have spoken, it is well to give a mild cathartic, even if the stomach has been emptied by vomiting. Some of the undigested materials, if this was the cause, may have passed into the intestine and should be removed, for the same reason that such a course was necessary in regard to the stomach. If dental irritation is the cause, the cathartic seems also to produce a very desirable impression, and one that is beneficial. This is one of the conditions in which I prefer to use castor oil in the full dose appropriate to the age of the child.

Convulsions in apparently healthy children, are sometimes excited by other causes than those which I have enumerated. They are frequently the forerunners of diseases, of which no other symptom has before appeared. It is the eruptive diseases which are especially apt to be thus announced. These are scarlet fever, measles, small pox, rose rash, and chicken pox. The usual history in such cases is like this. The child, after its seizure, is put into a warm bath, which quiets it, and it drops asleep while wrapped in the warm blankets. On opening the blanket to dress it, a rash or distinct eruption is seen upon the surface, and is the first indication of the disease by which the child has been attacked. Of course the physician should be at once sent for, to take the charge of the case. At other times, the eruption does not immediately appear, but after recovering from the convulsion the patient remains hot and feverish, the peculiar marks of the disease developing themselves only after twenty-four hours.

As I have not thought it wise to dwell upon these diseases minutely, I will here add the most distinctive marks of these various eruptions. Scarlet fever, scarlatina, or scarlet rash (for these names all mean the same thing), is distinguished by a more or less

extended, uniform, red eruption, not much raised above the surface, accompanied by a high fever, and frequently appearing first about the joints, as at the bend of the elbow, or under the knee. In many cases a sore throat precedes it, but this is not always so, and especially when, as I have above supposed, it is ushered in by a convulsion. The only disease with which it is very likely to be confounded is rose rash, which may be suspected if the disturbance is slight, if the patches are small, and scarlet fever is not known to be prevalent, or has once before attacked the patient. Rose rash (or roscola) is a mild disease, and the eruption is of a rose color, while that of scarlet fever is accurately described by comparing it to the color of the shell of a well boiled lobster. Whichever appears, the physician should be consulted. Scarlet fever does not usually occur but once in the same patient; rose rash is not thus limited.

The eruption of measles is of a paler color than either of the others, and appears first about the face, on the forehead, chin, nose, and cheeks. It is not uniform, but in little patches, and when the finger is passed over them there can be felt to be a decided roughness of the surface.

The eruption is usually preceded for a day or two by indications of a cold in the head, the eyes being watery, the nose constantly discharging an excess of secretion, while there is an annoying sneezing, with a ringing cough.

Small pox ought not to occur, because the child should be carefully vaccinated, whether in the city or country, within six months of the time of its birth. When it does, the eruption is first seen about the nose, but in small pointed pimples, which rapidly increase in size, sometimes running together.

Chicken pox is not unlike small pox in its eruption, but it appears in most cases principally upon the back, is accompanied by some itching, and is rarely ushered in by convulsions. Its pimples change into pustules, somewhat like small pox, and when these are upon the face, may leave decided scars. This is an annoying, but rarely a fatal disease. The physician does not usually need to see the patient more than once.

But to return from this long digression, I add, with regard to general convulsions, that when they occur after a long or violent sickness, it is a grave indication. Protracted diarrhœas, lung fever, water on the brain, and other diseases sometimes terminate

fatally in this way, and the physician should be at once notified of the occurrence. The remedies which I have previously spoken of, are, under these circumstances, of little use, though the warm bath may be cautiously tried, if the physician in attendance cannot be immediately consulted.

Partial convulsions, or local spasms, usually arise from the same causes that produce general convulsions. They are of importance, even if they consist in a simple involuntary twitching of the mouth, because the condition, if neglected, may lead to a more general attack, which is every way undesirable. An examination of the gums, attention to the diet, regulation of the bowels, whether constipated or the reverse, and forbidding all amusements which seem especially to excite the child, are among the necessary modes of treatment. The warm bath should be more carefully given every day, and every effort should be made to restore the child to a condition of perfect health.

There is one disease which is characterized by the spasmodic and involuntary contraction of the muscles of the whole frame, and receives its name from the strange distortions of the features, and peculiar positions of the patient. This is Saint Vitus'

dance. Its causes are so various that I shall not recommend any plan of treatment, for it could not be possible to suit even a majority of cases. When the disease occurs, the patient should be immediately placed in charge of a physician, for few cases become permanent when treated early. It may be a comfort to some mother to know that the disease is rarely, if ever, fatal.

Of Choking.

Another occurrence which allows no time for consultation, but demands immediate and intelligent action is choking; that is, the more or less complete obstruction of the windpipe. The inability to breathe freely at once produces great distress, and, if the interference is great, life may be soon lost. Hence the importance of the mother's knowing what to do, for children are especially liable to this accident. There are two ways of choking, as the phrase is popularly used, which require different treatment. The one to which the term is most properly applied is when a piece of solid substance gets into the upper part of the windpipe in such a way as to prevent air passing by it to the lungs. This may be caused by any substance, as a mouthful of

meat, which the individual attempts to swallow. Sudden and violent laughter with the mouth filled with food may cause this. Its symptoms are immediate distress for breath; efforts to inhale, which are evidently unsuccessful; little or no cough; a distressed and anxious look, together with a flushed, purple hue of the face, rapidly deepening in color, and if the obstruction is not at once removed death soon follows. The mother must, under these circumstances, act at once, for there is no time to wait for a doctor to arrive. A smart blow with the flat of the hand on the back, just below the neck, will sometimes serve to dislodge the substance, but if one or two of these do not bring immediate relief they should not be repeated. The mother's finger may then be passed directly into the mouth between the back teeth, or even between the jaws behind them, still on to the back of the throat. Turning the tip of the finger slightly downward, it should then be bent and moved about, but not with violence, to seek for and remove the offending substance, whatever it may be. This will be found behind the roots of the tongue, and directly in the middle of the throat, and the hooked finger will often, when brought forward, dislodge it. When done with cool-

ness and dexterity, this method is usually successful, if the obstructing morsel is of considerable size.

If these methods fail, the child may be taken up, turned head downward, and a smart blow upon the back will then dislodge the obstruction. This seems like a harsh and unscientific method, but I speak of it with some confidence, and some affection perhaps, for to the coolness of my father, in executing it, I owe the preservation of my life, when, from such an accident in childhood, I had become senseless.

A much more common occurrence is for some very small particle, as a crumb of bread, or of potato, or a drop of water, or other liquid, to get into the upper part of the windpipe. In common phraseology this is said to have gone the wrong way, and nothing can be more true, for it was intended to be swallowed, and instead of this it has gone into the passage intended for air only. There is a very exquisite arrangement made for guarding this passage against any intruding substances, by the endowment of the upper part of the passages with an acute sensibility, so that at the first approach of a strange body, the alarm may be given, and the opening may be closed. Now a small particle of any substance touching this part, at once excites violent coughing,

the design of this very effort being to expel the intruder. When this is accomplished, the irritation soon passes away, the cough of course ceasing. If, however, the irritating particle is not readily expelled, the coughing continues to be quite violent, and produces great alarm in the sufferer, as well as the spectators. It is comforting to know that this kind of choking is not dangerous, like the other of which I have before spoken. A blow upon the back, as I previously recommended, will sometimes dislodge the offending particle, and can be tried at once; search for it may then be made by the finger, and if this does not succeed, the cough continuing to be very violent for a few minutes, the air passages may then become more tolerant of the foreign body, and the violence and frequent repetition of the cough lessen. When the lull comes, a draught of cold water may be taken. This, by the effort of swallowing, tends to remove the substance, or if this has already gone, though some irritation remains, as is sometimes the case, its coolness tends to allay it. This violent coughing, though alarming, does not terminate in complete closure of the windpipe, as is the case when a piece of meat is drawn into it and stops it up. The obstruction is from a

spasm of the muscles, and therefore it is that I say it is not, like that, dangerous.

Sometimes substances of considerable size, such as seeds, coins, beans, &c., pass through the narrow chink at the upper part of the windpipe, and almost to the lungs themselves. The assistance of a surgeon is necessary, at as early a moment as possible. If it be a coin that is the offending substance, trial can be made before his arrival of reversing the position of the patient, that is, holding him a moment with his head down. But if the distress of the patient is not great, as may be the case, it is better to wait for the arrival of the surgeon, because attempts to dislodge the substance may result in bringing it into a more unfavorable position.

When a child, in eating solid food, does not chew it sufficiently, or when he attempts to swallow too much at once, it sometimes sticks in the gullet, producing quite unpleasant sensations, though not interfering with the breathing. A full draught of cold water will aid in carrying the mass along.

Fish-bones sticking by the way, may often be removed by crusts of bread, eaten for that purpose, but the advice of a surgeon is not unfrequently necessary.

When other bodies, such as pins, or buttons, or coins, are partly swallowed, if they are not in sight it is usually necessary to allow them to pass through the bowels, though occasionally pins and other pointed substances require to be removed by a surgeon. After they are swallowed, it is well to keep the child on solid vegetable diet, which is more bulky than meat, and better calculated to carry the material safely along than fluids. It is not wise to give violent cathartics, the utmost being every other day a small dose of castor oil. The evacuations should be watched, that the offending substance may be found in them, and the parent's anxiety be, by its appearance, entirely removed.

Substances in the Nose and Ears.

Why it is I cannot say, but children have a strong inclination to put various things into their nostrils, and into their ears. Peas, beans, bits of glass, alum, pebbles, almost all kinds of strange things they will squeeze into these passages, often with great labor and industry. There is no immediate danger in either of these, and the mother should not make very protracted efforts to get them out, before she sends for the surgeon, because she may do more harm than

would otherwise have resulted from the occurrence. It is for the purpose of giving this caution, chiefly, that I refer to the matter. But I may add, that there is no occasion for the anxiety often felt lest substances put into the passage of the ear should get to the brain. There is a strong membrane, stretched firmly across the passage, sufficient to prevent substances making their way any further in, but were it absent there would be no danger of their penetrating to the brain itself. The anatomical arrangement of the part is such, that this is entirely impossible. The legends of earwigs, and other monsters, creeping into children's ears while they sleep, and destroying them by going to the brain, are not even founded in fact. Moral earwigs are the only ones that are to be feared, and carefully guarded against.

Burns and Scalds.

These are perpetually occurring, and when extensive, or in certain situations, are indeed fearful. Immediate and intelligent action is necessary to save the life of the patient. When a child's clothes take fire, throw him down upon the floor at once, and roll him over and over, for in this way, if you do not extin-

guish the fire, you will put a stop to his increasing it by running about, and will lessen the chances of his chest being burned, or of his inhaling the flames, both of which seriously endanger life. If there is anything at hand made of wool, as a rug, a piece of carpet, a cloak, or shawl, wrap him in it at the same moment. The chances of extinguishing the flames are thus greatly increased, and this is, of course, the first thing to be done. When the fire is extinguished, the clothes should at once be carefully taken off, especial pains being taken *not* to pull off the surface of the skin at the same time, for this aggravates the pain, and seriously increases the danger. This is difficult when blisters have arisen, but should be accomplished so far as possible. A cotton or linen night gown can then be put on, and the child put in bed, if the burn is extensive, or if it is upon the chest — a comparatively small burn here being attended with increased danger. Over the part that is burned, oil that is not rancid must be poured, so that the whole surface is greased. Olive oil is generally obtained the most readily, but linseed oil is better. In want of these, lard may be used. Fine wheat flour should then be dusted over the surface thus oiled, and this can be best done with a dredg-

ing-box. The layer of flour should be quite thick, and should extend a little beyond the burnt surface. Over this again should be placed a layer of fine cotton batting, or light and flocculent carded cotton, which should be kept in its place, if necessary, by very light bandaging. Each of these three substances, the oil, the flour, and the cotton, are often used separately, but I like their combination better. If either is not readily at hand, the other two may be used, and if only one can be at once resorted to, it should be used. The oil, alone, is, however, less beneficial than either of the others. It is difficult to imagine how one could be so situated that flour would not be immediately at hand. When possible, it is well to use, instead of the oil, a mixture of equal parts of lime water and linseed oil, known in some districts by the name of Carron oil, from its successful use in cases of such accidents at the Carron works in England. Its odor, however, is rather disagreeable. Common white lead, ground in oil, has also been recommended by good authority, but I doubt if it is any better than the simple linseed oil. It may sometimes be more conveniently at hand than the other substances, and is therefore to be borne in mind. It should be spread over the

whole surface. The flour and cotton appear to be of benefit, chiefly from their preventing the contact of the air, which is an important consideration. After their application, they should not be disturbed, and if they become misplaced, or fall off, they should be at once renewed.

After these external applications have been made if there is any coldness of the extremities, light but warm coverings should be put upon the bed, and hot cloths should be put around the feet, and a bottle of hot water added to keep up the temperature. When extreme prostration comes on, wine whey, or milk punch may be given as freely as seems to be required by the circumstances. When all this has been done, the arrival of the physician can be awaited with equanimity, but he should be sent for immediately on the occurrence of the accident. I repeat, that a burn upon the chest is a more grave accident than one of the same size elsewhere, but with this exception, the extent and depth of the burn are the measure of its danger. It is proper to add, that it is a necessary precaution when open fires, or hot stoves are used, to clothe children in woolen instead of cotton, which is much more inflammable. The neglect of this precaution is every year the occasion of loss of life.

How scalds differ from burns.

Scalds differ from burns only by the different mode in which the heat is applied. They are, however, frequently more extensive, the hot liquid penetrating and running through the clothing to a much larger surface than is reached by the flames, or the red-hot solid. The injury is, moreover, instantly done. If a child falls into a hot liquid, he should at once be snatched out of it, but a fatal scald is the common result of such an accident. A scalding liquid, if poured on, is usually in a jet, or shower of short duration, which has done the mischief before any one can interfere. From their extent and from their situation, being often upon the chest, scalds are frequently fatal. Their treatment is the same as that of burns.*

* The following facts, which I gather from the last census of the United States, are of interest, and may serve to illustrate and enforce the importance of my suggestions on this subject. There are reported for the year ending June 1st, 1850, 1707 deaths from burns, and 344 deaths from scalds, making in all 2051 deaths from these causes. They are thus classified, as to ages and sex:

Causes of Death.	Under 1 year.		1 and under 5 years.		5 and under 10 years.		10 and under 20 years.		20 and under 30 years.		30 and under 50 years.		50 and under 80 years.		80 and under 100 years.		100 years and over.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Burns,	71	73	340	445	104	245	38	121	83	101	25	44	8	8	—	1	669	1038		
Scalds,	23	18	149	94	16	12	7	—	21	2	1	1	—	—	—	—	217	127		

It is worthy of notice that 369 more females were burned than males, while 90 more males than females were scalded. The greater number of burns, which is apparent during each period but one, may possibly be, in part, attributable to the inability of a female to escape from a burning building, or vessel, when males are able to do so; but is more probably due to the difference in the materials and

A severe and extremely dangerous mode of scalding, is that caused by drinking boiling water, or inhaling hot steam. Children sometimes manage to get hold of a tea-kettle, and suck either the steam or hot water, contained in it. At other times, a sudden escape of steam, at a high temperature, from a steam engine, fills the air with scalding vapor, and to breathe it is almost certain death. Prevention of the accident is the only safe course, and children should, therefore, be early taught that tea-kettles are to them, forbidden playthings. If a sudden escape of steam is the cause of danger, something should be immediately thrown over the head of the child, even if it is no more than a veil, though a thicker substance is more desirable. The design of this is to keep off the vapor till it becomes cooler, which is

forms of dress, of the two sexes. It will also be seen that after the age of *ten*, there are 29 deaths of males reported as caused by scalding, and only 3 of females, which is, I suppose, to be accounted for by the greater exposure of men to accidents from steam escaping from steam engines, and from falling into boiling liquids used in various manufactures, to none of which are women so liable. Examining these accidents which occurred under the age of ten, we find that 515 boys, and 763 girls, died of burns, while 188 boys, and 124 girls died of scalds. Or, taking the differences, we have 248 more *girls* burned than boys, which is a little *less* than one-half more, while 64 more *boys* than girls were scalded—which is a little *more* than one-half more. The more constant house amusements of girls, and their cotton garments setting off from their limbs, by their dryness ready to take fire at the first touch to a hot stove, or burning coals, must, it seems to me, account for this great difference in the deaths from burns; while, on the other hand, the greater strength, and the clambering propensities of young boys, expose them to fall into tubs, or to bring down the contents of tea-kettles upon them with fatal results. This is farther shown by the fact, that 60 more boys under five years, than girls of the same age, died from this accident.

very soon the case. The scalding from inhaling steam is most dangerous, for the hot vapor is drawn into the windpipe, even, while hot water taken into the mouth is not usually allowed to go far before it is spit out. Immediately after either of these accidents, iced water and small pieces of ice may be put into the mouth as constantly as possible, but there is ground for the worst anticipations, so far as the life of the child is concerned.

Both burns and scalds are often followed by very great disfiguration of the patient, and this in spite of the most skilful treatment. A knowledge of this fact is in justice due both to the mother and the physician, that the latter may not be blamed, improperly, if deformity results from the accident, and that the former may not be so unwise as to attempt, herself, to direct the treatment of these injuries, when extensive.

Small burns and scalds are to be treated on the same principle, though if in a convenient position for it, as on the fingers, the part can be at once plunged into cool water and allowed to remain there for some time. When taken out of the water, fine carded cotton should be put over it to prevent the contact of the air in the mode previously directed.

Wounds, Sprains, Bruises, and Broken Bones.

Children are perpetually meeting with these accidents, and they are all worthy of thought on the part of the mother. It is often sufficient for her to know what to do, the physician's advice becoming necessary only for the grave accidents.

Wounds made with a tolerably sharp knife are much more inclined to bleed, than those, which from being made with a more blunt or dull instrument, are torn rather than cut. At the same time they often heal more kindly, and are less apt to leave a scar behind them. If a child cuts himself, a soft sponge, or piece of soft linen, wet with cold water, should be pressed upon the wound till all bleeding has stopped, and as soon as this has occurred, its edges may be brought together and held in place, either by a narrow strip of sticking plaster — which by the way it is well to have constantly in the house — or by some other variety of preparation for such uses. Court plaster answers very well for quite small cuts, but is not so good as arnica plaster, which resembles it in appearance, but is not so apt to irritate the wound and cause it to fester. Any dirt, or clots, that may have got into the wound, should be

carefully washed away before it is closed. A ragged wound is to be treated in the same way. If the wound, in either case, is deep, the sides of it should be supported by a bandage, put on after the application of the plasters. If the blood comes out of some of the vessels divided by the incision in jets, spirting forcibly to some distance from the surface, the mother should at once press upon the skin directly over it, in such a way as to bring it between her finger and the bone lying nearest under it. After holding it in this way for five minutes, the pressure may be carefully removed, and if no more bleeding from the vessel occurs, the wound may be done up as before directed. Should not the first attempt suffice to stop the flow it may be repeated two or three times, but if the blood does not then stop, the pressure should be steadily continued till the surgeon arrives.

Sprains are most frequently met with in the ankle and wrist joints, though they are also liable to occur in every joint of the limbs. The joint should at once be rubbed with lard, and the child kept perfectly still, with a piece of lint, or other soft material, constantly wet with cool water upon the joint. If the swelling becomes very great, it is

better to send for the surgeon, because what is sometimes supposed to be a sprain, is in fact a dislocation, a bone being out of joint, as the phrase is. If there is not much swelling, but a good deal of pain, an ounce of arnica flowers may be put into a pint of hot water, and after it is sufficiently cool, the joint may be freely bathed with the water.

Bruises require to be treated in the same manner as sprains. The lard is an item of moment, for it often lessens the swelling at once, and there is, after its use, less discoloration from settling of the blood in the vicinity. A bruise is of importance, chiefly according to its locality. It is those about the head that are of the greatest importance, their results sometimes being very serious. On this account, if after such an injury the child does not seem to be entirely well, especially if it should have a convulsion, the physician should be at once consulted.

Broken bones no mother would think of treating, and I only say, with regard to them, that the patient should be put upon a bed, and its injured limb laid out straight, which is usually the most comfortable position, till the surgeon arrives. This accident does not often occur to children, and the collar bone is the one that is most frequently broken.

Bleeding from the Nose.

Blows upon the nose, or falls, in which this organ is struck, often cause quite severe bleeding. It is well to bathe it in cold water, repeatedly renewing it, and pouring it particularly upon the upper part of the nose. If this does not suffice, a piece of ice may be held, a little while at a time, between the eyes. Sometimes firm pressure upon the sides of the nose, between the eyes, will stop the flow of blood. When such means fail, alum may be powdered very finely, and blown up into the nostrils through a quill pointed directly upward, after being passed through the opening. Frequently the bleeding is from one side only, and then remedies should of course be applied to that alone.

Earache.

No pain is much more severe than this, it being frequently remembered as the great suffering of childhood. It usually is caused by some exposure to cold air. The ear may have a lock of cotton, that has been warmed, placed gently in its passage, which shutting out the cold air, often removes the suffering. If this does not do it, a little sweet oil

may be warmed in a spoon, and half as much paregoric then be mixed with it. Of this a drop or two may be allowed to run down into the ear, it usually giving entire relief from the pain. I have before stated that no fear need be entertained that it will penetrate to the brain.

Poisons.

Various substances which are poisonous are in common use, and if carelessly left within reach of children, will sometimes be taken by them. Occasionally a medicine, which in the proper dose would be beneficial, is given in too large quantity, and thus becomes poisonous, while various plants, which grow almost everywhere, are, if eaten, injurious in the same way. Prevention by keeping these things out of reach, is of course a wise precaution, but after all "accidents will happen in the best regulated families." The following are the remedies for the most common poisons. For most of them, immediate action is required, and though the physician should be at once sent for, the mother should not remain inactive.

Corrosive sublimate is one of the substances most frequently poisoning children fatally. Its popular

use as a "bedbug poison," introduces it into many families, and especially to those who are ignorant of its dangerous properties. It is also more frequently left within reach of children than other dangerous preparations, while the want of color in the solution, does not enable the child to see that it is not water. A quantity is sometimes thus drunk, before the child is noticed. The remedy is, to make the child immediately swallow the raw white of eggs, or if he will not take this, the yolk and all may be beaten up together in a little milk slightly sweetened, and given. The more of this that he takes, the better, and if possible, the white of at least six eggs may be thus given. After it has been all swallowed a few minutes, say fifteen, a strong emetic of mustard and water should be given, to throw off the egg, which entangles the poison. The accident is a serious one, and much depends on the promptness with which the raw eggs are given.

Alcohol, in whatever form, if swallowed in considerable quantity, requires a prompt emetic, either of mustard and water, or of salt and water, to be given, and as soon as the stomach is emptied, as much water may be given as the patient can be induced to take.

Acids, whether oil of vitriol (sulphuric acid), or aqua-fortis (nitric acid), or oxalic acid, do not often come in the way of children so as to be swallowed. When they are taken, the patient should be made to drink, as soon as possible, a strong soap suds, made of any soap, hard or soft, that is nearest at hand. Meantime some prepared chalk, in fine powder, or magnesia, should be mixed with a little water, to be taken as soon as it is ready. If the soap does not produce vomiting, a mustard emetic may be given some time after the chalk has been taken. These poisons, however, if strong, destroy the parts touched by them, and of course the remedies suggested, cannot restore them. They are designed to neutralize and remove any that may remain in the stomach.

Alkalies are not often swallowed by children, the chief exposure being, when lye is made from ashes, or a solution of potash is at hand for the manufacture of soap. The treatment is to give vinegar, or some kind of oil, either castor, lard, olive, or linseed oil doing equally well. The oil and vinegar may be given alternately, and in large quantities.

Phosphorus may be taken by eating the ends of matches, or by eating bread on which rat poison, in

which this is a chief ingredient, has been spread. Chalk and magnesia may be given, as directed for acids.

Arsenic requires milk to be taken freely, and free vomiting should be produced by giving either a mustard or salt emetic. If milk is not conveniently at hand in sufficient quantity, give wheat flour and water, mixed together.

Laudanum.— Opium in excess, whether given in this form, or in paregoric, or McMunn's elixir, or Dalby's carminative, or in other ways, requires the same treatment. A prompt emetic is the first thing to be given, and mustard or salt may be tried. The trouble is, that it is difficult to produce any effect by them, the stomach acting sluggishly from the presence of the narcotic. A dose of sulphate of zinc (white vitriol) may therefore be obtained and given. The patient should be kept walking about, or roused in some way; striking with rods, dashing cold water in the face, and similar methods, must be constantly practised till the physician arrives.

Poisonous seeds and plants of various kinds, are eaten by children, and require, so far as the mother is concerned, the same treatment. The most common of these are the stramonium, known as the

Jamestown weed (corrupted into Jimsen weed), or horn apple, and conium, known as poison hemlock. A prompt emetic is the remedy, and when mustard and salt fail, a more powerful one should be obtained from a druggist. There is so much danger from this cause, that especial pains should be taken to destroy all the plants which grow in the vicinity of dwellings. Several garden plants are poisonous, but the same treatment is required when they are eaten.

Stings of Insects.

These are not often very serious, though of common occurrence. From the most common, as mosquito bites, to those which are more serious, as the stings of large bees, the best remedies are cologne water, spirits of hartshorn (ammonia), tincture of camphor. The insect sometimes breaks off his sting in the flesh, or it is left when he is killed in the very act. It is, therefore, well to look for this. It is known by the black dot in the middle of the poisoned spot. This can be seized by delicate forceps and pulled out. If it remains, the worst is, an increase of the soreness of the sting, and a formation of matter, by which its discharge is after some time accomplished.

Repelled Eruptions.

When in the course of an eruptive disease, like measles, the eruption disappears suddenly, convulsions may follow. It is then necessary to give the patient a warm bath, increasing the temperature till it is, in fact, hot. This is the most ready restorer of the eruption, which is the first necessity. Saffron tea, which is a popular remedy, does no particular good, but it does no harm, unless it is trusted to the exclusion of the warm bath. A vigorous action of the skin, thus excited, generally brings it out again.

APPENDIX.

DIETARY.

For the convenience of those who may be at a loss for directions concerning the preparation of various articles of food, recommended in the preceding pages, or of occasional use in the nursery, I have added the following receipts, gathered from different sources, and all of practical value.

Wine Whey.—Take equal quantities of milk, water, and wine, and set the milk and water over the fire until it boils, then add the wine, allowing it to boil for a moment, stirring it. Take out the curd and sweeten the whey to your taste. When cool, it is ready for use. This is for children during the first year. As the child grows older, omit the water.

Milk Punch.—To a gill of milk add a teaspoonful of brandy, with a teaspoonful of loaf sugar.

Beef Tea.—Take about half a pound of tender beef and put it into a saucepan, with water enough to cover it well. Let it boil slowly for about half an hour, then skim it carefully and pour off the liquor, adding a very little salt.

Beef Soup is made much in the same way as beef tea, but it must boil about an hour and a half or two hours, adding a little rice about half an hour before taking it off the fire.

Chicken Broth is made by taking about a third of a chicken, covering it well with cold water, putting in a little salt, and letting it boil for two hours, skimming it *very carefully* and putting in either a little rice or pearl barley, about half an hour before taking it up.

Beef Essence.—Take a pound of meat, carefully separated from the fat, chop it as fine as possible, pour upon it half a pint of cold water and mix i

well; let it stand an hour, stirring three or four times, and then press out all the fluid. Pour another half pint of cold water on the meat, mix as before, and let it stand with occasional stirring for half an hour, when the fluid is to be again pressed out of the meat. Then put the meat into a small covered tin dish, which is to be put into a saucepan or similar vessel, with cold water in it, coming two-thirds of the way up the side of the dish that holds the meat. Put the sauce pan on the fire so that the water will gradually heat till it boils, and the boiling may be allowed to continue for twenty minutes. A fluid will exude from the meat, and this is again to be pressed out of it. Mix now the three fluids, adding a little salt, and boil them together about twenty minutes in a covered vessel. During the last boiling, rice may be added if desired. The fluid obtained in this way often requires to be reduced for children by the addition of hot water, but it contains the nutritious elements in a more digestible condition than most other preparations. Other meats can be treated in the same way.

Stewed Oysters.—Put the oysters into a saucepan and let them simmer about fifteen minutes. If any

scum rises take it off. For young children, they should not be seasoned at all, as they are salt enough of themselves, and are too rich if butter or flour is added. When given to the child crumb in a little stale bread, and take out the hard part of the oyster.

Beef Steak.—Get a small piece of tender steak, the tenderloin is best, and put it upon the gridiron over a quick fire, so that it will not be dried up, and cook it rarely, adding a very little salt. No butter or pepper is required for a child.

Broiled Chicken, should be cooked in the same manner as the beef steak, only a little longer, and seasoned only with salt. The skin of the chicken should not be given to the child.

Boiled Rice.—To half a cup of rice put a pint of cold water and a very little salt. Boil it about twenty minutes, then pour off the water, add about half a cup of rich milk, and let it boil about fifteen minutes longer.

Fried Rice.—The rice should be boiled in the same

way as before mentioned, omitting the milk, and when cold should be cut in thin slices. Then rub a little butter on the griddle, just enough to prevent the rice from sticking, but not so as to make it at all fatty, and lay on the slices, browning them on both sides. It may be eaten with or without sugar, as the child prefers.

Sweet Potatoes.—These are usually relished by children, and are very wholesome if carefully baked so as to be soft and dry, when they should be mashed, and a little milk or sweet butter put with them, together with a little salt. With most children these are more digestible than white potatoes, particularly if there is a tendency to diarrhœa.

Arrowroot.—To a teaspoonful of arrowroot put a cup of milk. When the milk is boiling, mix the arrowroot with a little water to form a smooth paste, and put it into the milk, stirring it carefully for several minutes so that it may have no lumps. Then take it from the fire and add a little salt, and sugar if agreeable to the child.

Corn Starch is prepared in the same way as arrowroot.

Sago.—Wash a large spoonful of sago, boil it in a little water with a pinch of salt and one or two sticks of cinnamon until it looks clear, then add a pint of milk, boil all well together, and sweeten with loaf sugar.

Wheat Gruel.—Tie half a pint of wheat flour in a thick cotton cloth, and boil it three or four hours; then dry the lump, and grate it when you use it. Prepare a gruel of it by making a thin paste and pouring it into boiling milk and water, and flavor with salt. This is good for teething children.

Toast Water.—Toast bread very brown and put it into a glass of cold water. This is often relished by children when much water is not allowed.

"*Lait de Poule.*"—This is frequently used by the French, and is of occasional use in this country. It is made by beating up the yolk of an egg in half a pint of water, and sweetening it with a little refined sugar.

Isinglass Jelly.—To an ounce of shaved isinglass

put a quart of water, boil it down to a pint and strain it through a flannel bag; add a little sugar and a very little wine—just enough to flavor it—and set it away to cool. Jelly made of the American gelatine is most excellent, and upon the paper directions for preparing it are found, but for young children the lemon should be omitted and but little wine used—not more than one-fourth the quantity directed. This is not to be depended on to nourish the child.

Tapioca Jelly.—Take half a cup of tapioca, wash it two or three times, and soak it in water for five hours. Then simmer it in the same water in which it has been soaked, with a pinch of salt and a little cinnamon, until it becomes nearly transparent. Then put in it a little loaf sugar, and pour it into glasses to cool.

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